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From Stockholm to Rio: A Comparison of the Declaratory Principles of International Environmental Law

DR. RANEE KHOOSHIE LAL PANJABI*

I. INTRODUCTION

In just seven years our planet Earth will enter a new century. Whether or not it survives the next hundred years will depend largely on the effectiveness of international and national efforts in the next few years. The depletion of the ozone layer protecting the planetary environment, the befouling of air, the pollution of water, the erosion of soil, the destruction of forests, the contamination of the oceans—these are but a few of the host of environmental problems which have to be tackled urgently if the planet is to continue to provide a haven for our species and for all the other millions of life forms whose existence is imperilled by the activities of Man. There is now a terrifying realization among millions of environmentally conscious people around the world that these problems are so vast, overwhelming and pervasive that governments may not be able to act in time to restore the Earth, to save the world for future generations.

Fortunately, the growing environmental awareness and recognition of the urgency of the problem has generated a determination in thousands of people world-wide to undertake this task. Never has humanity faced greater obstacles or been more challenged to come up with adequate solutions. Yet never have so many people of different races, religions and ways of life been prepared to face the challenge as they now appear to be.

There can be little doubt that environmentalism is the major political, economic and social issue of the 1990's. This cause commands the type of grass-roots support around the planet which few other ideas have evoked in the long history of Mankind. Environmentalism has achieved the status of a philosophy few would dare to question or oppose. It may

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well become the primary ideology of the post-Cold War world. If governments can respond adequately to the demands of their people, the human species may yet be able to salvage the only viable home it has. The problem lies not in the acceptance of environmental concerns but in the implementation of environmentalists' programs for clean-up. A planet facing debilitating recession in its richest nations and grinding poverty in its poorest cannot yield the resources and the funds to clean up the environment. An emphasis on short-term necessity may push aside the long-term interest which dictates that the Earth must be cleansed of its foul air and water if the human species is to survive.

The global concern about the problems of the environment has evoked two major world conferences in the past two decades. The first was held at Stockholm, Sweden in 1972; the second, in June, 1992 at Rio de Janeiro, Brazil. These two conferences have been successful in generating global concern about environmental deterioration but have not yet resulted in action to match the level of international awareness and concern. The problem is that rhetoric about the environment is far easier to produce than action, and international forums tend on occasion to degenerate into "rhetoric-fests," where world leaders spout all the proper phrases but then go home and often fail to implement their internationally-formulated promises.

Because environmentalism has now become a political issue, it has fallen prey to the vicissitudes of political expediency and is often a victim of the fact that democratic governments—those most attuned to environmental awareness—are often short-lived and subject to electoral changes. Thus, the very situation which encourages free choice in democracies appears to militate against the implementation of long-term solutions of clean-up which alone can save the planet. This is why it is so important to raise environmentalism above the level of party politics and make it an issue of national and international significance, not only in terms of promise and commitment but in terms of action and implementation. The numerous nations which participated in the United Nations Conference on the Human Environment in Stockholm and the United Nations Conference on the Environment and Development (UNCED) in Rio were aware of the chasm between rhetoric and real action which is an inevitable aspect of environmentalism. It was assumed at both conferences that the creation of blueprints of principle would emphasize the significance of environmental concern. The acceptance by all nations of a body of principles could form an initial step to encourage not merely national measures to curb pollution but international treaties to alleviate the global environment. Both conferences paid particular attention to the formulation of these principles which were to guide and chart a path for Mankind. The Stockholm Conference produced the Declaration of the United Nations Conference on the Human Environment, which consists of a preamble and twenty-six principles. The recent conference at Rio resulted in acceptance of the Rio Declaration on Environment and Development, which has a brief preamble and twenty-seven principles.

This article will attempt to provide an in-depth comparison of these two international documents with a view to discerning the significance of each and the differences in emphasis in the two decades from the 1970's to the 1990's as demonstrated in these instruments. As the Rio Declaration specifies the significant directions for the next few years, the emphasis will be on this instrument of international endeavor. World opinion on the priorities, successes and weaknesses of the Rio Declaration is relevant to a full understanding of its significance. It must be pointed out that length constraints limit the degree to which every aspect of the comparison can be explored. Nor can every principle in each declaration be analyzed. That project would require a book in terms of length. The focus will be on the Rio Declaration as it stands and not on the process by which it was created.

Although both international conferences produced other instruments for acceptance and signature,¹ the formulation of bodies of principles was significant in establishing the fact that environmentalism is not merely an issue of political and economic concern. The Stockholm and Rio Declarations have brought a new dimension to the tone of environmentalism by generating an awareness that these issues over-ride the more mundane considerations which prompt ordinary political action. The declarations signify a universal acceptance of and acquiescence in the primary, fundamental fact that environmentalism is a matter of values. It may not be too early to call it the new ethic of the 1990's. Inspired by the pain of millions who suffer daily from the effects of environmental pollution, the declarations serve to remind the leaders of the planet both about the seriousness of the problem and about the need for dramatic measures to alleviate the lot of those who have been victimized. Even though both declarations fall short of reflecting the moral authority which initially inspired them, they form a useful charter and benchmark for future direction.

Although cynics may argue that such pronouncements of principle are hopelessly naive, an exercise in futility, more honored in the breach than in the observance, the very fact that so many nations could after intense deliberation formulate these principles is indicative of the universality of awareness concerning the many facets of the environmental problem. The skepticism of those who witnessed the non-implementation of most of the Stockholm principles is akin to the pessimism of those who

1. The Stockholm Conference resulted in *Action Plan for the Human Environment* and resolutions on World Environment Day, Nuclear Weapons Tests and the Convening of a Second Conference on the Human Environment. See U.N. Doc. A/CONF. 48/14 (1972).

The delegates attending the 1992 Rio Earth Summit, as it was popularly called, accepted the massive detailed formulation of specific environmental plans called Agenda 21, agreed to a non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests (see U.N. Doc. A/CONF.151/6/Rev.1, June 13, 1992), signed the *United Nations Framework Convention on Climate Change* (see U.N. Doc. A/AC.237/18 (Part II/Add.1)), and the more controversial *Convention on Biological Diversity*, 31 I.L.M. 818, 822 (1992), which the Government of the United States of America refused to sign.

daily decry the fact that Mankind appears not to heed or follow the teachings of the great religious leaders. However, few of those who lament the religious deficiencies of modern citizens would be in favour of discarding the great body of religion and philosophy that has been produced for the benefit of Mankind. Similarly, the inadequate implementation of environmental principles ought not to daunt or deter us from realizing their inherent significance and relevance.

An emphasis on legal principle can be very useful in the international realm where there is yet no supra-national sovereign power to control states. While acknowledging that nation states are still in a virtual state of nature with respect to the exercise of power, few would dispute the fact that international law daily erodes the realm of that natural sovereignty and circumscribes it with treaties, trade agreements, United Nations resolutions and a plethora of good faith accords. William Thorsell has written about the "erosion of sovereignty that has been accelerating since the 1970's."² Iraq learned the hard way that unilateral aggression simply does not pay when its invasion of Kuwait was challenged by international military intervention. States which choose to behave like renegades risk being treated as pariahs. The people of Iraq continue (at time of writing) to suffer the consequences of the actions of their dictator Saddam Hussein. By a curious twist of fate, it was left to Saddam Hussein—the present champion of irresponsible national sovereignty—to demonstrate the importance and dire necessity for an international approach to environmental concerns. By flooding the Persian Gulf with oil and by blowing up over seven hundred Kuwaiti oil wells³—an act which befouled the air all the way to India—he demonstrated the international impact of ecoterrorism and underscored the need for universal measures to save the planet. If governments are not yet willing to surrender their sovereign powers for the environmental benefit of all inhabitants of this planet, it is imperative that at the very least they be reminded constantly both of their obligations and of their responsibilities in this regard. A short body of easily comprehensible principles serves a useful purpose as an environmental beacon guiding nations and their citizens toward greater environmental awareness. Hopefully, the realization of the dimensions of the problem will generate further efforts to practice environmental protection.

Nationalism is today the single largest obstacle to global environmentalism. The "us" against "them" mentality generated by nationalism breeds a reliance on narrow perspectives based on self-interest and the immediate expedient requirements of a sovereign state. The international outlook, on the other hand, favors a long-term, less self-centered approach. The problem is that while environmental agreements are internationally formulated, they have to be nationally implemented. Hence, what should be achieved with universal benefit in view is often subsumed to

2. William Thorsell, *A New Chapter in the Decline and Fall of National Sovereignty*, GLOBE AND MAIL (Toronto), Dec. 26, 1992, at D6.

3. *Hatred*, NEWSWEEK, June 1, 1992, at 31.

the self-interest of the sovereign state. The fact is that today, despite the plethora of international agreements, treaties and the existence of the United Nations and its numerous bodies, sovereign states are still essentially in a state of nature with respect to their relations with each other. This unfortunate reality makes decisive action in the environmental field extremely difficult. Given the existence of so many nations on this planet, the best that one can hope for is that many of them will be inspired by their own environmental rhetoric and by their international commitments to take the necessary steps to clean up their own area of the planet. The principles of environmentalism may be formulated on the large international stage. Regrettably, the materialization of these principles takes place in the narrower national sphere. Therein lies the biggest obstacle and the greatest challenge for environmentalists.

Another facet of the problem was explained by Frances Cairncross writing in *The Economist*:

Nature is no respecter of national boundaries. Across those dotted lines on the globe, winds blow, rivers flow and migrating species walk or fly. The dotted lines may carve up the earth, but the sea and the atmosphere remain open to all, to cherish or plunder. When people in one country harm that bit of the environment they assume to be theirs, many others may suffer, too. But how, and how much, can countries make their neighbours change their ways?⁴

The limitations of the present political structure of the planet with its multitude of small, medium and large nation states certainly slows the pace of environmental activity. The vast disparity of resources, wealth and population between these many states adds to the problem. But as Maurice Strong, Secretary-General of UNCED commented:

We do not have a central world government, and if we are going to insist that you set up a central world government and a central world gendarmerie before you deal with environment problems, the planet will be dead. We have to work with the system we've got, which is nation states working together through the United Nations, which is the only global organization that can perform that function.⁵

The World Commission on Environment and Development proposed in its report, *Our Common Future*, that:

Building on the 1972 Stockholm Declaration . . . there is now a need to consolidate and extend relevant legal principles in a new charter to guide state behaviour in the transition to sustainable development The charter should prescribe new norms for state and interstate behaviour needed to maintain livelihoods and life on our shared planet,

4. Frances Cairncross, *The Environment: Whose World Is It, Anyway?*, *ECONOMIST*, May 30, 1991, at 5.

5. *Leader of Rio Conference Predicts Success*, *CHRISTIAN SCI. MONITOR*, May 29, 1992, at 3 (an interview of Maurice Strong, Secretary General of the United Nations Conference on Environment and Development).

including basic norms for prior notification, consultation, and assessment of activities likely to have an impact on neighbouring states or global commons.⁶

The call to create new normative structures was timely and valid. However, the implementation of this challenge would not be easy. Dennis Lloyd commented: "Law . . . cannot but be a reflection—however partial and imperfect—of the society in which it operates, and if that society contains inherent contradictions these will be manifested in the fabric of the law itself."⁷ Prior to the publication of *Our Common Future*, the United Nations General Assembly had accepted the World Charter for Nature in 1982.⁸ The World Charter for Nature and the Stockholm Declaration have been appropriately called "decennial touchstones in the area" of international environmental law.⁹

Ten years after the World Charter for Nature and five years after the initial publication of *Our Common Future*, the task of creating a body of principles of international environmental law was still formidable, given the diversity of interests, both national and regional which sought representation for particular points of view. The environmentally conscious developed world envisaged an Earth Charter which in Howard Mann's opinion "would be readable, understandable and accessible to everyone, (i.e., a document that was not a typical U.N. resolution) but [that] would provide an important tool for the shaping of public opinion on, and support for, the concept of sustainable development."¹⁰ According to A.O. Adede, during the pre-UNCED process, the United Nations Working Group's priorities were to make the principles short and concise, with an inspiring and appealing text which would be "easily understood by the general public."¹¹ If both the Stockholm and Rio Declarations appear less than perfect in terms of their inspirational value, it could equally be suggested that they at least address the primary concerns of the majority of governments represented at the two environmental conferences. Although the Stockholm and Rio Declarations have not been categorized as legally binding, their acceptance at both conferences was by no means easy. The discussions and debates over principle drew forth the full panoply of argument on the North-South divergence, the developed versus developing conflict and the rich nations against the poor nations. That so much thundering rhetoric accompanied the formulation of declarations never meant to be legally binding indicates that delegates at both Conferences

6. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *OUR COMMON FUTURE* 332 (1989).

7. DENNIS LLOYD, *THE IDEA OF LAW* 225 (1985).

8. The vote was 111-1 in favor of passage. See G.A. Res. 37, U.N. GAOR, 37th Sess., Supp. No. 51, U.N. Doc. A/37/51 (1983).

9. Howard Mann, *The Rio Declaration*, 86 PROC. A.S.I.L. 406 (John Lawrence Hargrove ed., 1992).

10. *Id.* at 409.

11. A.O. Adede, *International Environmental Law from Stockholm to Rio—an Overview of Past Lessons and Future Challenges*, 22 ENVTL. POL'Y & L. 88, 100 (1992).

were keenly aware of the ultimate significance of creating a body of environmental principles. Principle can be the precursor of law, provided it evokes sufficient public support and generates a type of moral authority of its own. A body of international legal principles can also, over the course of time, be assumed by some of its proponents to be acceptable as customary law.¹² Even though the Stockholm and Rio Declarations may not bind nations in the legal sense, they do oblige them morally to respect the ideas as indicators of a universal consensus about the priorities of environmentalism. Representing Thailand at UNCED, Dr. Chulabhorn Mahidol reminded delegates that the Rio Declaration would "have a very strong political and moral force."¹³

The differing priorities of the developed world for environmentalism and the developing world for development were reflected in the long and rather bitter debates which resulted in the rather choppy and less than inspirational text of the Rio Declaration.

The original idea among the developed countries was to produce a ringing declaration in Rio which 'kids all over the world could hang on their bedroom walls.' But then the developing countries rather unhelpfully pointed out that many of the children in their part of the world don't have bedrooms.¹⁴

The proposed Earth Charter became "a graphic symbol of the North-South divide,"¹⁵ and was converted into a more pedestrian, rather wordy declaration which the world accepted with a somewhat resigned sense of inevitability. Bowing to the inescapable force of international political reality, the head of the Canadian delegation and Personal Representative of the Canadian Prime Minister at Rio, Arthur Campeau described the final declaration as "a document suitable for bureaucrats."¹⁶

The delegates even argued at Rio about the status of the Rio Declaration. The United States was in favor of placing the body of principles as a preamble to the detailed Agenda 21 document.¹⁷ As Agenda 21 is also not legally-binding, this idea would appear to have some logic. However, Agenda 21 is also unlikely to be read widely or perused by the general public. It has been criticized as a "750-page document of unsurpassed UN verbosity, intended to be the world's work programme for sustainable de-

12. For a perception of the Stockholm Declaration's customary law status see Mann, *supra* note 9, at 405-14.

13. Professor Dr. Her Royal Highness Princess Chulabhorn Mahidol, Personal Representative of the King of Thailand, Statement at United Nations Conference on the Environment and Development (June 5, 1992).

14. Frank McDonald, *If This is Progress, We're in Deep Trouble*, IRISH TIMES, June 11, 1992, at 7.

15. Lucia Mouat, *Earth Summit in Rio Faces Complex Issues*, CHRISTIAN SCI. MONITOR, Mar. 27, 1992, at 7.

16. Geoffrey York & James Rusk, *PM Urges Action to Save Species*, GLOBE AND MAIL (Toronto), June 2, 1992, at A3.

17. Lucia Mouat, *Small Steps to Saving the Planet*, CHRISTIAN SCI. MONITOR, Mar. 12, 1992, at 3.

velopment."¹⁸ Attaching the Rio Declaration to Agenda 21 might well have ensured its consignment to oblivion in future years. The independent status of the Declaration guarantees it a wider audience. It has also been suggested that this status gives it "the effect of what many describe as 'soft law.'" ¹⁹

The Stockholm Conference had raised public awareness about our ailing planet, and the Rio Summit extended this interest worldwide as television and radio carried its message to the far ends of the earth. The Stockholm Conference attracted only two heads of government, Indian Prime Minister Indira Gandhi and Swedish Prime Minister Olaf Palme.²⁰ The Earth Summit at Rio drew over one hundred heads of state and government.²¹ Dr. Michael Oppenheimer of the Environmental Defense Fund explained that "[y]ou can't be treated as a world leader on any issue without being a player on the environment."²² As Brad Knickerbocker commented in *The Christian Science Monitor*, "[s]ince the last gathering convened 20 years ago, both the seriousness of global environmental problems and general awareness about them have increased dramatically, as has the level of human suffering due to related poverty."²³ In 1972, the U.S.S.R. and its Eastern European allies boycotted the Stockholm Conference because the German Democratic Republic could not participate equally with other member nations.²⁴ At Rio there was more global participation both at the governmental and non-governmental level, reflecting the seriousness of environmental degradation and possibly also illustrating the effectiveness of the Stockholm Conference in heightening international awareness of the problem.

The following comparison of the two documents of principle²⁵ will include quotations in italics from both with appropriate references. The clauses of the two documents have been grouped on the basis of sub-headings which explain the essential subject matter of the various principles. Those portions of the principles which are relevant to the theme of the sub-heading will be quoted. Occasionally, an important principle may be repeated as it may require analysis under different sub-headings. It was felt that this method of proceeding was preferable to following one or other document seriatim in view of the fact that the two documents

18. *Bargain Not a Whinge*, TIMES (London), June 1, 1992, at 15.

19. Mouat, *supra* note 17.

20. Summary Report of the Seminar Convened by the Canadian Department of External Affairs and International Trade and the Department of Environment, Meech Lake, Quebec, Dec. 8-9, 1991, at 5 [hereinafter Summary Report of Canadian DEA].

21. Reuter, *Earth Summit: Saving the World Had its Lighter Moments*, VANCOUVER SUN, June 15, 1992, at A9.

22. William K. Stevens, *Lessons from Rio*, N.Y. TIMES, June 14, 1992, §1, at 10.

23. Brad Knickerbocker, *World Leaders Gather at Rio for Earth Summit*, CHRISTIAN SCI. MONITOR, June 2, 1992, at 1.

24. Summary Report of Canadian DEA, *supra* note 20.

25. For the Stockholm Declaration, see U.N. Doc. A/CONF. 48/114 (1972). For the Rio Declaration, see U.N. Doc. A/CONF. 151/5/Rev.1 (1992).

merge and diverge continually. For the reader's convenience, the full text of the two declarations is included as an Appendix to this article.

II. POPULATION

The Stockholm Declaration underlined the significance of the population issue. Its preamble stated:

The natural growth of population continuously presents problems on the preservation of the environment, and adequate policies should be adopted, as appropriate, to face these problems. (Stockholm Declaration, Preamble 5).

The body of the Stockholm text was however, rather vague with respect to specific solutions for a problem which was already recognized as fundamental by most member states of the United Nations.

Demographic policies which are without prejudice to basic human rights and which are deemed appropriate by Governments concerned should be applied in those regions where the rate of population growth or excessive population concentrations are likely to have adverse effects on the environment or development, or where low population density may prevent improvement of the human environment and impede development. (Stockholm Declaration, Principle 16).

In a very real sense it could be argued that the implementational failures of Stockholm in a variety of areas propelled and galvanized the frenzied activity before Rio. The intervening two decades have not been kind or benign for either the planet or for its dominant species. The world's population, three and a half billion²⁶ at the time of the Stockholm Conference had risen to approximately five and a half billion²⁷ by the time delegates gathered in Rio for the Summit. It is interesting to note that the first United Nations Conference on Population held in Rome in 1954 had projected a world population figure of three and a half billion by 1980.²⁸ In light of those predictions, the actual figure is even more alarming. "Between 1950 and 1985, world population grew at an annual rate of 1.9 per cent compared with 0.8 per cent in the half-century preceding 1950."²⁹ In the present decade, it is estimated that the earth has to feed, house and clothe an additional ninety-two million people each year, eighty-eight million of them inhabiting the developing world.³⁰ The United Nations estimates that world population will reach seven billion

26. WADE ROWLAND, *THE PLOT TO SAVE THE WORLD* 13 (1973).

27. *GLOBE AND MAIL* (Toronto), Apr. 29, 1992, at A1.

28. ROWLAND, *supra* note 26, at 31.

29. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 99 (citing DEPARTMENT OF INTERNATIONAL ECONOMIC AND SOCIAL AFFAIRS, *WORLD POPULATION PROSPECTS: ESTIMATES AND PROJECTIONS AS ASSESSED IN 1984* (1986)).

30. Sandra Postel, *Denial in the Decisive Decade*, cited in *STATE OF THE WORLD: A WORLDWATCH INSTITUTE REPORT ON PROGRESS TOWARD A SUSTAINABLE SOCIETY* 3, 191 (Linda Starke ed.) (relying upon POPULATION REFERENCE BUREAU, 1991 WORLD POPULATION DATA SHEET (1991)).

by the year 2010.³¹ Although the crisis had escalated in seriousness over the twenty year period, the delegates at Rio were even less capable of decisive action than their predecessors at Stockholm.

The failure of the Rio Declaration to mention the population issue in precise and clear terms was perceived as a fundamental flaw. Hence what was excluded from the body of principles was as important as what was ultimately included. James Brooke of the *New York Times* suggested that "[c]lauses in documents concerning population growth were watered down after closed-door lobbying by delegates from the Vatican and Saudi Arabia, both for religious reasons."³² This criticism is echoed by Christopher Young who asserted that "[t]he Vatican, with support from Muslim fundamentalist countries, fought successfully to draw the teeth from any declaration about the need for population control, on which other attempts at worldwide environmental progress may well depend. Heavy lobbying by the Catholic Church has managed to remove any direct mention of family planning or population control from the relevant Earth Summit documents."³³

The position of the Catholic Church was ably presented at the Earth Summit by His Eminence Angelo Cardinal Sodano, Secretary of State for the Vatican and by Archbishop Renato R. Martino, Apostolic Nuncio and Head of the Holy See Delegation to the United Nations Conference on Environment and Development. Asserting that the position of the Holy See "regarding procreation is frequently misinterpreted,"³⁴ Archbishop Martino insisted that "the Catholic Church does not propose procreation at any cost."³⁵ He specified that "[w]hat the Church opposes is the imposition of demographic polices and the promotion of methods for limiting births which are contrary to the objective moral order and to the liberty, dignity and conscience of the human being."³⁶

While conceding that "[e]veryone is aware of the problems that can come from a disproportionate growth of the world population,"³⁷ Cardinal Sodano emphasized the linkage between the poverty of the many and the wastage of resources by the few. Echoing Pope John Paul II, the Cardinal reminded delegates at U.N.CED that "the pollution of the environment and risks to the ecosystem do not come primarily from the most densely

31. James Rusk, *Summit to Stress Resource Limitations*, GLOBE AND MAIL (Toronto), May 20, 1992, at A2.

32. James Brooke, *The Earth Summit; Rich Nations Offer Money, But Small Ones Raise Issues*, N.Y. TIMES, June 14, 1992, §1, at 10.

33. Christopher Young, *The Earth Summit: Mulroney's Stand Politically Correct*, EDMONTON J., June 5, 1992, at A13.

34. H.E. Archbishop Renato R. Martino, Apostolic Nuncio, Head of the Holy See Delegation, Statement at United Nations Conference on the Environment and Development (June 4, 1992).

35. *Id.*

36. *Id.*

37. His Eminence Angelo Cardinal Sodano, Secretary of State of the Vatican, Statement at United Nations Conference on the Environment and Development (June 13, 1992).

populated parts of the planet.”³⁸ Statistical analyses support the Cardinal’s position. At the present time eighty-five per cent of the world’s income is enjoyed by a mere twenty-three per cent of its population.³⁹ Maurice Strong who organized UNCED and served as Secretary General for both international conferences, highlighted the serious inequity between the rich and poor nations by pointing out that a child born in the developed world would consume twenty to thirty times more of the planet’s resources than a child born in a developing nation.⁴⁰ The per person energy consumption of Europeans is ten times that of Africans. North Americans consume twenty times the energy utilized by Africans.⁴¹ It was not unnoticed that the position of the religious leaders was sympathetic to and in tune with the attitude of many developing nation delegates. Glenn Godfrey, Attorney General for Belize, denied that overpopulation is one of the main causes of environmental degradation and insisted that “poverty is caused not by a growing population, it is caused rather by the failure of the developmental process to distribute the wealth . . . in a socially just manner.”⁴² An editorial published in *The Times* (London), was critical of the Holy See:

[w]hat the Vatican has done, with a hint of mischief making for its own purposes, is to orchestrate the voice of Third World resentment towards such Western demographic arrogance. But it would have been far more honest to have let the argument come to the surface at Rio than to try to forestall it by diplomatic pressure.⁴³

In fairness it has to be noted that developing nations are keenly aware of the serious nature of their population problem. Pakistan’s Prime Minister, Nawaz Sharif, agreed that “[d]eveloping countries must assume their full share of responsibility in limiting population growth to manageable levels.”⁴⁴

There was considerable finger-pointing and mutual recrimination prior to and during the Earth Summit at Rio. The considerations on world population control fell victim both to the influence of religious tradition and to North-South wrangling. Eugene Linden put the matter in appropriate, if gloomy, perspective: “if human numbers and consumption continue to rise unabated, there is little hope for the other creatures with whom we share the earth and a high probability of catastrophe for humanity itself.”⁴⁵ British Prime Minister John Major emphasized the con-

38. *Id.*

39. Postel, *supra* note 30, at 4.

40. Michael McCarthy, *Brazil Offers to Host New Green Institution*, *TIMES* (London), June 4, 1992, at 11.

41. Brad Knickerbocker, *The World From . . . Rio de Janeiro*, *CHRISTIAN SCI. MONITOR*, June 10, 1992, at 3.

42. Glenn Godfrey, Attorney General for Belize, Statement at United Nations Conference on the Environment and Development (June 5, 1992).

43. *The Pope and Birth Control*, *TIMES* (London), May 19, 1992, at 13.

44. James Brooke, *supra* note 32, at 10.

45. Eugene Linden, *Summit To Save the Earth; Population: The Uninvited Guest*,

sequences of ignoring the population crisis by stating that the Rio process "has no chance of success if we do not do much better in our efforts to slow the growth of population." He added that in failing to take such measures the Earth would destroy itself.⁴⁶ Despite the lengthy discussions which preceded Rio, the best the delegates could agree on was:

To achieve sustainable development and a higher quality of life for all people, States should . . . promote appropriate demographic policies. (Rio Declaration, Principle 8).

Clearly, in tackling the most basic and fundamental social, economic and environmental problem facing the planet, the delegates at Rio regressed from the vague ambiguities agreed to at Stockholm. *Time* referred to this as "perhaps the worst example of bureaucratic obfuscation."⁴⁷

III. POLITICAL CAUSES

The historic chasm between North and South—a chasm founded in their shared imperial past—rose to haunt delegates at both Stockholm and Rio. As the victims of decades of economic deprivation, the developing nations inevitably focussed on the legacy of colonial rule and its relation to environmental degradation. Their former imperial masters, now enjoying the status of developed countries, were less anxious to bring these political issues of the past to the surface in what had been termed an "environmental discussion." In the end the South won, to an extent. Both declarations referred to the political issue uppermost in the minds of the delegates from the developing world.

Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuating apartheid, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated. (Stockholm Declaration, Principle 1).

The concern was expressed again in Principle 15 of the Stockholm Declaration:

Planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all. In this respect projects which are designed for colonialist and racist domination must be abandoned. (Stockholm Declaration, Principle 15).

TIME, June 1, 1992, at 54.

46. Robin Oakley & Micheal McCarthy, *Major Promises Pounds 100m More for Green Projects*, *TIMES* (London), June 13, 1992, at 1.

47. Philip Elmer-Dewitt, *Summit to Save The Earth; Rich vs. Poor*, *TIME*, June 1, 1992, at 42.

Colonialism with its consequences was still clearly a priority on the agenda of international problems insofar as developing nations were concerned. As Dr. W.K. Chagul, Tanzania's Minister of Economic Affairs and Development Planning, commented: "The evils of *apartheid*, racial and colonial oppression, far from being irrelevant, are at the very core of environmental problems in Africa due to the degradation they cause to the human resources by taking away the rights of the many and thereby bringing benefits to only a minority."⁴⁸ Latin American nations echoed the complaints of the Africans by arguing that "the 'economic imperialism' of multi-national corporations, based in the U.S. and elsewhere, was depriving them of effective control of their economies, and resulting in the rapaciously wasteful spoliation of their resource bases, carried out under absentee managers who had no real concern for the local environment."⁴⁹

By the time the Rio Conference occurred in 1992, the emphasis of the political concerns of developing nations had adjusted to a more marked concentration on the fate of the Palestinians, particularly those in the occupied territories under Israeli rule. In the preliminary planning phases for UNCED, it became evident that "the conference was to be as much about the North-South dialogue between the rich and the poor as it was about the environment."⁵⁰ The North-South dialogue zeroed in on the Israeli occupation of Arab land to highlight an issue which is a sore point with proponents and opponents of Israeli actions with respect to its Middle East neighbors. The Arabs and the Palestinian representatives in particular were anxious to incorporate some form of condemnation of oppression and occupation into the Rio Declaration. Farouk Kaddoumi, Head of the Political Department of the Palestine Liberation Organization, stated at UNCED that "[p]rograms aimed at environmental upgrading are closely related to the necessity of removing all forms of oppression."⁵¹ Mr. Kaddoumi emphasized the consequences of Israeli control over Palestinians: population over-crowding, deforestation, reduction of the area of cultivable land, overgrazing, reduction of available water supplies, use of herbicides by settlers in the Occupied Territories, soil erosion, and desertification.⁵² The Palestinian delegate concluded that the condition of occupation precluded the fulfilment of sustainable development.⁵³ The Syrian Vice-President, Abdul-Halim Khaddam, included Israeli activities in Lebanon in his denunciation of Israel's environmental

48. ROWLAND, *supra* note 26, at 52.

49. *Id.* at 53.

50. David D. Newsom, *Paving the Road to the U.N. Environmental Conference*, CHRISTIAN SCI. MONITOR, Apr. 8, 1992, at 18.

51. Farouk Kaddoumi, Head of the Political Department of the Palestine Liberation Organization, Statement at United Nations Conference on the Environment and Development (June 11, 1992).

52. *Id.*

53. *Id.*

record.⁵⁴ At time of writing this article, the whole world is watching the fate of more than four hundred Palestinians (a number of them professors and physicians), who were deported by Israel, rejected by Lebanon, and who are at this moment living in makeshift camps in a "no man's" land between the two countries.⁵⁵ Their plight in adjusting to conditions without any modern amenities has caught global attention and has no doubt garnered more sympathy for the Palestinian cause, a consequence probably unforeseen by the Israeli government when it issued the deportation orders. The expulsions were an Israeli retaliation "for the murder of a paramilitary border guard by the Palestinian fundamentalist Hamas movement."⁵⁶

During the Rio preparatory process, Israel objected strenuously to the attempt to castigate its policies in the Occupied Territories in the drafts of the statement of principle.⁵⁷ At UNCED, however, the Israelis were more positive in tone. Conceding that "conflicts and dispute all over the world prevent genuine cooperation,"⁵⁸ Dr. Uri Marinov, Director General of Israel's Ministry of the Environment, reminded delegates of the environmental discussions which formed part of the on-going Middle East peace process and suggested that "[t]he environmental negotiations of the current peace talks should be used first for environmental purposes; but the opportunity they present as a basis for overcoming political controversy should not be ignored."⁵⁹

According to *The Times* (London), the Americans brokered a deal on this Middle Eastern controversy over the Rio Declaration: "A deal was struck by the Americans on Israel's behalf . . . by which the reference will be removed from the summit's giant work programme, Agenda 21, while remaining in the declaration."⁶⁰ The controversial clause in the Rio Declaration read:

The environment and natural resources of people under oppression, domination and occupation shall be protected. (Rio Declaration, Principle 23).

The satisfaction of the developing nations was expressed by the Minister of Foreign Affairs of the United Arab Emirates. Rashid Abdullah Al-

54. Abdul-Halim Khaddam, Vice-President of the Syrian Arab Republic, Statement at United Nations Conference on the Environment and Development (June 12, 1992).

55. Patrick Martin, *Exiles Find Vindication in No Man's Land*, GLOBE AND MAIL, Dec. 31 1992, at A.

56. *Fury Over Israeli Expulsions*, 147 MANCHESTER GUARDIAN, WASH. POST WEEKLY 1 (Dec. 27, 1992).

57. Michael McCarthy & Robin Oakley, *Green Charter Agreed at Rio*, TIMES (London), June 12, 1992, at 7.

58. Dr. Uri Marinov, Director General of the Israeli Ministry of the Environment, Statement at United Nations Conference on the Environment and Development (June 3, 1992).

59. *Id.*

60. McCarthy & Oakley, *supra* note 57, at 7. See also UNCED: *Rio Conference on Environment and Development*, 22 ENV'T POL'Y AND L. 204 (1992).

Noaimi informed colleagues at UNCED that his nation welcomed "the principle contained in the agreed declaration of the Conference pertaining to the need to provide protection for the environment and natural resources of the peoples suffering from oppression, domination and occupation."⁶¹

IV. NATIONAL SOVEREIGNTY

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies (Stockholm Declaration, Principle 21).

It is evident that most developing nations, having suffered years of foreign exploitation and rule, are still wary of international phraseology which they believe may restrict the exercise of their recently-acquired independent status. This hesitancy was evident at Stockholm. During the lengthy process which resulted in the formulation of the Stockholm Declaration, the delegation from the People's Republic of China (then a new member of the United Nations⁶²) proposed its own series of principles which included the following rather significant clause: "Any international agreement should respect the sovereignty of all countries. No country should encroach on another under the pretext of environmental protection."⁶³ The Chinese suggestion is reflected in the Stockholm Declaration.

The emphasis on national sovereign rights was by no means exclusively a developing world concern. The Canadian delegation presented a draft of principles for incorporation in the Stockholm Declaration. The first of those principles reads: "Every state has a sovereign and inalienable right to its environment, including its land, air and water and to dispose of its natural resources."⁶⁴ It is apparent that Canada "played a central role in the drafting of Principle 21."⁶⁵ Although the United Nations Charter bases the Organization "on the principle of the sovereign equality of all its Members,"⁶⁶ one wonders whether the frequent restatement of national sovereignty is really necessary in light of the growing realization that environmental catastrophe is a global concern and will require international efforts to alleviate the plight of its victims. It would appear that all nations rich and poor are anxious to preserve their national rights even while conceding to the global nature of the problems they are

61. Rashid Abdullah Al-Noaimi, Minister of Foreign Affairs of the United Arab Emirates, Statement at United Nations Conference on the Environment and Development (June 9, 1992).

62. See United Nations Document General Assembly Resolution 2758 (XXVI), Oct. 25, 1971, concerning the recognition of the People's Republic of China and the expulsion of Taiwan from membership in the World Organization.

63. ROWLAND, *supra* note 26, at 93.

64. *Id.* at 88.

65. Summary Report of Canadian DEA, *supra* note 20, at 7.

66. U.N. Charter art. 2.

tackling.

The rather wordy tribute to national sovereign rights in an international document of principles was interestingly repeated almost verbatim in the Rio Declaration. The only difference was the addition of two significant words in the Rio version:

...the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies. . . (Rio Declaration, Principle 2)(emphasis added).

With the inclusion of developmental policies, the Member States of the United Nations underscored the twin objectives of UNCED - namely environment and development. They also raised this principle to the second in ranking order, possibly signifying its importance.

In view of the fact that the Rio Declaration in its preamble reaffirmed the Stockholm Declaration and specifically sought to "build upon it," (Rio Declaration, Preamble, ¶ 3), the restatement verbatim of the principle of sovereign rights in the 1992 document would appear to be redundant. Its very presence in both formulations suggests the significance of the issue of national sovereignty to Member States of the United Nations.

As the world has collectively intervened militarily to free Kuwait from Iraqi aggression and has intervened humanely to feed the starving in Somalia, a declaration justifying and emphasizing the primacy of national sovereignty would appear to be almost regressive in terms of the universalist ideals of the Earth Summit. At time of writing, developed nations of Europe and North America are coming under increasing pressure to intervene in Bosnia to force the Serbs to stop killing the residents of Sarajevo. As William Thorsell commented, "[a]t the UN, the principle of self-authorized intervention in the 'domestic affairs' of nations for 'higher' purposes is emerging *ad hoc*."⁶⁷

Simultaneously, there is a definite back-lash from both developing and developed nations which find safety in clinging to the trappings of nationalism and are loath to concede to the new internationalism which accompanies environmental concerns. The Editor of *Environmental Policy and Law* explained the situation at UNCED very lucidly:

The problems of national sovereignty came again to the fore. Clearly, when world responsibility is accepted for environmental danger, some States have difficulty in accepting that this will also entail giving up some of their rights and accepting new responsibilities. On the one hand, this is understandable. On the other, all states have to accept that we have only one earth and that such sensitive aspects can only be solved with compromise on both sides.⁶⁸

67. Thorsell, *supra* note 2, at D6.

68. Wolfgang E. Burhenne & Marlene Jahnke, *Introduction* to 22 ENVTL. POL'Y & L., (Aug. 1992).

The addition of "developmental" considerations in the Rio Declaration and its placement in tandem with environmental policies also signalled a new effort at integration of the two concepts: a perception developed in the light of events arising from the Stockholm Conference when it became apparent from the plethora of subsequent discussions, analyses and conferences held on numerous facets of these issues that the interconnection had to be stressed. It is now obvious that over-development in some countries has resulted in environmental degradation while under-development in others has also caused environmental decline. The World Commission on Environment and Development expressed this realization:

Environment and development are not separate challenges; they are inexorably linked. Development cannot subsist upon a deteriorating environmental resource base; the environment cannot be protected when growth leaves out of account the costs of environmental destruction. These problems cannot be treated separately by fragmented institutions and policies. They are linked in a complex system of cause and effect.⁶⁹

The difficulty lies, not so much in realizing this interconnection in theory but in keeping it in the forefront in practice. The practice of such integrated thinking will require considerable effort and adjustment of policies in the realm of resource management and business in every nation on Earth.

V. INTERNATIONAL COOPERATION

Having deferred substantively in both documents of principle to the primacy of national sovereign rights, the delegates were equally eager to demonstrate their commitment to the concept of international cooperation. Realizing that environmental restoration cannot proceed exclusively in the national sphere, the Member States of the United Nations pledged themselves to seek universalist solutions to the serious crisis of planetary decline. A study of both declarations illustrates the tacit adherence to the idea of international cooperation in environmental matters. The movement from Stockholm to Rio is indicative of mounting world apprehension because of environmental degradation and therefore reflects not so much a new trend but a more specific sense of direction.

A growing class of environmental problems, because they are regional or global in extent or because they affect the common international realm, will require extensive co-operation among nations and action by international organizations in the common interest. The Conference calls upon Governments and peoples to exert common efforts for the preservation and improvement of the human environment, for the benefit of all the people and for their posterity. (Stockholm Declaration, Preamble, No. 7).

The Stockholm Declaration called for

69. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 37.

International co-operation . . . in order to raise resources to support the developing countries in carrying out their [environmental] responsibilities. (Stockholm Declaration, Preamble 7).

These appeals for international effort and cooperation were echoed in Principle 24:

International matters concerning the protection and improvement of the environment should be handled in a co-operative spirit by all countries, big or small, on an equal footing. Co-operation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States. (Stockholm Declaration, Principle 24).

It is interesting to note that in the very principle stressing the need for cooperation, mention had to be made once again of the importance of state sovereignty.

At Rio, delegates included a brief mention of the concept of cooperation in their Preamble:

With the goal of establishing a new and equitable global partnership through the creation of new levels of cooperation among States, key sectors of societies and people (Rio Declaration, Preamble, para 4),

and also in the Preamble:

Working towards international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system. (Rio Declaration, Preamble, para 5).

The concept of international cooperation was spelled out in far greater detail in the Rio document, possibly because the experience of two decades between Stockholm and Rio had made this matter of critical importance. Hence while governments around the world reiterate their commitment to national rights, they are now keenly aware of their mutual vulnerability when facing ecological crises. "Major disasters—Valdez, the Brazilian forests, fisheries, Chernobyl, 3-mile Island, the Gulf War and droughts in Africa—have added sharpness and urgency to the world's concern."⁷⁰ The pace of these disasters appears to have intensified. One hundred and ninety-three people were injured when dioxin leaked in Seveso, Italy in 1976.⁷¹ An accident at a chemical plant in 1979 in Novosi-

70. Geoffrey Bruce, *A Review of the Stockholm Conference of 1972, Of Some Significant Developments in the Environment Since 1972, and of Some Major Challenges and Opportunities for Canada in Preparing for UNCED in 1992*, in Summary Report of Canadian DEA, *supra* note 20, at 24.

71. HELEN CALDICOTT, *IF YOU LOVE THIS PLANET* 76 (1992).

birsk, U.S.S.R. killed three hundred people.⁷² Leakage in 1984 at a pesticide plant in Bhopal, India resulted in the death of approximately two thousand five hundred people.⁷³ Although disasters of this nature occur within national boundaries, as the Chernobyl example shows, the consequences can be international. The world is waking up to the fact that although we may not be under nuclear threat at the moment, there are other potentially serious and life-threatening dangers lurking in every nation of this planet. There is more consensus now than there was in 1972 that "[i]nternational agreement is the best way to solve environmental problems that transcend national borders."⁷⁴

Despite the many environmental agreements and treaties which have marked the two decades between Stockholm and Rio, few would dispute the fact that "[t]he world's environment is more degraded and is less stable than it was 20 years ago."⁷⁵ The Worldwatch Institute has estimated that earth has lost approximately five hundred million acres of trees since 1972, "an area roughly one-third the size of the continental U.S."⁷⁶ Equally catastrophic, for the growth of food crops, the world has lost about five hundred million tons of topsoil, "an amount equal to the tillable soil coverage of India and France combined."⁷⁷ Food production per capita declined in ninety-four countries between 1985 and 1989.⁷⁸ Al Gore, Vice-President of the United States, has commented that "[m]odern industrial civilization, as presently organized, is colliding violently with our planet's ecological system."⁷⁹

Environmental degradation is proceeding at an alarming pace in both developed and developing nations. No country is immune from the impact of damage to ecosystems. The shared problem makes cooperative effort the only viable alternative. The World Commission on Environment and Development recognized the new reality:

Until recently, the planet was a large world in which human activities and their effects were neatly compartmentalized within nations, within sectors (energy, agriculture, trade), and within broad areas of concern (environmental, economic, social). These compartments have begun to dissolve. This applies in particular to the various global 'crises' that have seized public concern, particularly over the past decade. These are not separate crises: an environmental crisis, a development crisis, an energy crisis. They are all one.⁸⁰

Cooperation at Rio was framed along fairly precise lines. Although

72. *Id.*

73. *Id.*

74. Cairncross, *supra* note 4, at 5.

75. Bruce, *supra* note 70.

76. Elmer-Dewitt, *supra* note 47, at 42.

77. *Id.*

78. Sharon Begley, *Is it Apocalypse Now?*, NEWSWEEK, June 1, 1992, at 36.

79. AL GORE, *EARTH IN THE BALANCE* 269 (1992).

80. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 4.

the language of the Rio Declaration is more bureaucratic than visionary, it is probably more useful than the more nebulous pronouncements which were formulated at Stockholm. Inevitably, the theme of cooperation underlies both documents. The more specific content of the Rio Declaration is indicative of the more serious attention paid to environmental cooperation since the 1970's.

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. (Rio Declaration, Principle 7)

Having stressed the concept of global partnership—implying joint responsibility—the Rio Declaration went on to outline the areas wherein this cooperation should occur:

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. (Rio Declaration, Principle 12)

The recognition of the need for more justice in the distribution of the economic benefits was not merely an act of deference to developing nations. It reflects a growing realization in the developed, richer nations that the so-called Third World is set on a developmental course, regardless of the environmental consequences, simply because these poor nations have no other choice if they are to give their present populations some kind of decent life. As Al Gore has suggested: "Rapid economic improvements represent a life-or-death imperative throughout the Third World. Its people will not be denied that hope, no matter the environmental costs. As a result, that choice must not be forced upon them."⁸¹ One of the great challenges of the post-Rio process, already underway, will be the implementation of this principle in the cause of global sustainable development and hopefully, a cleaner environment.

VI. INTERNATIONAL COOPERATION WITH RESPECT TO ENVIRONMENTAL DAMAGE

The Rio Declaration urges States to cooperate to prevent transboundary pollution.

States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health. (Rio Declaration, Principle 14)

This issue is of more than academic concern, especially since the recent signing of the North American Free Trade Agreement between Canada,

81. GORE, *supra* note 79, at 279.

the United States of America and Mexico.⁸² *Newsweek*, referring to a survey by the government of the United States, stated that "four of five American companies operating plants across the border in Mexico admitted they were there to take advantage of weak environmental laws."⁸³ It will take an enormous amount of government-to-government persuasion to ensure that the economic boom now proceeding in Mexico does not result in an environmental catastrophe.

In 1986, an accident at a nuclear reactor in Chernobyl, U.S.S.R. killed at least twenty-five people and sent radioactive fallout across Europe.⁸⁴ "Current estimates predict anything from 14,000 to 475,000 cancer deaths worldwide from Chernobyl. No one will ever know for certain."⁸⁵ The reaction to this disaster at UNCED was strong and the language of the principles more firm than is normal for such documents:

States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted,
(Rio Declaration, Principle 18)

and this further provision:

States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.
(Rio Declaration, Principle 19)

The mandatory nature of the language is very significant both in terms of the concerns expressed and with respect to the precise obligations placed on Member States of the United Nations regarding their responsibilities should such an event occur. The Rio language carries more punch than the milder provision on toxic substances included in the Stockholm Declaration:

The discharge of toxic substances or of other substances and the release of heat, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems. The just struggle of the peoples of all countries against pollution should be supported. (Stockholm Declaration, Principle 6)

The Stockholm Declaration followed the approach of opting for the fur-

82. Canadian Prime Minister Brian Mulroney, Address at the Kennedy School of Government, Harvard University (Dec. 10, 1992).

83. *The Seven Deadly Sins*, NEWSWEEK, June 1, 1992, at 30.

84. CALDICOTT, *supra* note 71, at 77.

85. Nicholas Lenssen, *Confronting Nuclear Waste*, in STATE OF THE WORLD 1992 46, 49 (Linda Starke ed., 1992).

ther creation of international law to deal with transboundary pollution:

States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction. (Stockholm Declaration Principle 22)

This provision was repeated in the Rio Declaration:

States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction. (Rio Declaration Principle 13)

The problem of transboundary environmental damage was interestingly enough linked both at Stockholm (Principle 21) and at Rio (Principle 2) with the emphasis on national sovereign rights, already discussed above under the sub-heading "national sovereignty." Accordingly, the following provision appeared in the Stockholm Declaration:

States have . . . the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction. (Stockholm Declaration, Principle 21)

This part of Principle 21 was repeated verbatim in Principle 2 of the Rio Declaration. The linkage of sovereign rights and national responsibilities was largely credited to Canada's active participation at Stockholm. As the Canadian government explains:

Principle 21 of the 1972 Stockholm Declaration represented a watershed in international environmental law in acknowledging the sovereign right of states to exploit their own resources and the responsibility of states "to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction." Canada played a central role in the drafting of Principle 21. The conceptual framework provided by Principle 21 has been applied successfully by Canada in other negotiations, and is the legal foundation of virtually every international environmental agreement and legal instrument concluded since Stockholm.⁸⁶

VII. THE RIGHT TO DEVELOPMENT

The provisions on development were of primary importance to delegates at both conferences because although the principles were not deemed to be legally binding, there was an implicit feeling that the more the South could wrest in developmental assistance promises from the

86. Summary Report of Canadian DEA, *supra* note 20, at 7-8.

North, the more likely was it that the Declarations could be utilized to hold the rich nations accountable for their lapses with respect to sharing the world's wealth equitably. Both Declarations highlight the importance of development for the poorer nations and acknowledge the primacy of that concept. Indeed it could even be suggested with a degree of justification (albeit a trace of exaggeration) that the Rio Declaration is almost a sustainable development charter for the South. There are at least six principles in the Rio Declaration which deal specifically with the concerns of developing nations. The Stockholm Declaration includes the subject in its Preamble and in approximately six of its principles, though arguably, both documents are filled with indirect references which apply to the poor and rich nations.

It is important to stress that developmental priorities are reflected in the Declaration on the Right to Development adopted by the United Nations General Assembly in 1986 which specifies that "[s]tates have the primary responsibility for the creation of national and international conditions favourable to the realization of the right to development."⁸⁷ The South could argue at Rio that it was simply acting in line with the principles of the Declaration on the Right to Development. The following principle incorporated into the Rio Declaration illustrates this point:

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations. (Rio Declaration, Principle 3)

The nations of the South, in their rush to development, threaten to destroy the global environment even more vigorously than the North did in its somewhat slower industrial revolution. Self-interest in both North and South now dictates an approach which would assist Southern development in a manner that is not environmentally degrading so that the atmosphere, the air and the water of the entire planet can ensure the future survival of people in all parts of the globe. The South now holds a crucial card in its favor and has played it to the hilt in continually reminding the North that developed nations contribute most of the pollution of the planet, consume most of the resources and generate most of its waste, while developing nations shoulder most of its economic backwardness, its degrading poverty and its enormous debt load.⁸⁸

The shared imperial past of Northern and Southern nations has left a legacy of inequitable distribution of the world's limited wealth. Political subjugation resulted in economic exploitation. Southern resources and

87. *Declaration on the Right to Development*, G.A. Res. 41/128, U.N. GAOR 3d Comm., 41st Sess., Supp. No. 53, Art. 3.1, U.N. Doc. A/C.3/41/SR (1986). See also Ramee K.L. Panjabi, 30 VA. J. INT'L L. (1989)(reviewing James Crawford ed., *THE RIGHTS OF PEOPLES* (1986)).

88. For a strong example of the South's position see the CSE Statement on Global Environmental Democracy To Be Submitted to the Forthcoming U.N. Conference on Environment and Development, Centre for Science and Environment, New Delhi, India.

markets were critical to the industrial development of imperial nations like Britain and France. In the past, the South had no choice but to contribute to the prosperity of the North. In fact, its contribution to Northern affluence still outweighs the foreign aid it receives from developed nations. The World Bank estimated that at the end of 1991, the total debt stock of developing nations was \$1281 billion.⁸⁹ This crippling debt burden can be traced back to the 1970's when sudden increases in oil prices and low interest rates induced many developing nations to borrow from the rich nations. As interest rates rose in the 1980's, these countries found it increasingly difficult to meet their debt obligations. "Between 1973 and 1980, Third World debt increased by a factor of four, to \$650 billion."⁹⁰ The consequences to the environment are dramatic:

Rising poverty and the desperate attempts of Third World countries to earn hard currency carry not only a heavy human and economic cost but also an environmental one. Many indebted nations rely on their natural resources—whether timber or minerals like copper—to raise foreign exchange from trade Environmental resources are being exhausted just to pay debt.⁹¹

Although Official Development Assistance to the South totalled a significant \$49.7 billion by 1988, there was still a "massive, perverse redistribution of income," because the outward flow from Southern nations exceeded by about \$8 billion the total official development assistance payments.⁹² UNICEF estimated that about half a million children in the developing world died in 1988 because "social progress in Third World countries has been stalled or reversed by crushing debts and falling revenues."⁹³ Clearly, the South is still subsidizing the high standard of living in the North. It was inevitable that the delegates at Rio would have to confront this issue—the most fundamental in the North-South dialogue—in formulating all the agreements which were produced at that conference.

At Stockholm in 1972 delegates realizing that global environmental degradation was a consequence of industrialization in the North and under-development in the South, believed that narrowing the gap between the rich and poor nations was one important solution.

In the developing countries most of the environmental problems are caused by under-development. Millions continue to live far below the minimum levels required for a decent human existence, deprived of adequate food and clothing, shelter and education, health and sani-

89. Government of Canada (United Nations Conference on Environment and Development Reports), *Debt Conversion Initiative to Promote Sustainable Development*, June, 1992.

90. CALDICOTT, *supra* note 71, at 130.

91. BEN JACKSON, *POVERTY AND THE PLANET* 96-97 (1990).

92. IVAN L. HEAD, *ON A HINGE OF HISTORY* 42-44 (1991).

93. Charlotte Montgomery, *Children Paying Foreign Debt Load With their Lives*, *UNICEF Says*, *GLOBE AND MAIL*, Dec. 21, 1988, at A9.

tation. Therefore, the developing countries must direct their efforts to development, bearing in mind their priorities and the need to safeguard and improve the environment. For the same purpose, the industrialized countries should make efforts to reduce the gap between themselves and the developing countries. In the industrialized countries, environmental problems are generally related to industrialization and technological development. (Stockholm Declaration, Preamble 4)

Unfortunately, the ideals of Stockholm failed to materialize. Jean Charest, Canada's Minister of Environment, reminded delegates at the Rio Earth Summit that in the past "thirty years, income disparities between the North and the South have grown from twenty times to sixty times." He commented that "this trend is simply not sustainable."⁹⁴ By 1992, the escalation of the world's economic problems made for sharper reactions at Rio. This time actual blame was assigned to the rich nations:

States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command. (Rio Declaration, Principle 7)

The nations of the South could justify their somewhat rancorous mood at Rio with plenty of statistical evidence. To compare the situation with respect to two prominent nations, the United States of America and India: the U.S.A, with five percent of the world's population, consumes twenty-five percent of its energy, emits twenty-two per cent of all CO₂ produced and accounts for twenty-five per cent of the world's GNP.⁹⁵ On the other hand, India, with sixteen per cent of the world's population, uses a mere three per cent of its energy, emits three per cent of all CO₂ produced and accounts for only one percent of global GNP;⁹⁶ and India is by no means among of the world's poorest nations. For in that type of comparison, the disparities would be far greater. From the perspective of the North-South divide, the North "which has 25 percent of the world population, consumes 70 percent of the planet's energy, 75 percent of its metals, 85 percent of its wood."⁹⁷

To understand the shift in mood over the two decades between Stockholm and Rio, one could compare the gentle suggestion in the Stockholm Declaration:

The non-renewable resources of the earth must be employed in such a way as to guard against the danger of their future exhaustion

94. Jean Charest, Minister of Environment for Canada, Statement at United Nations Conference on the Environment and Development (June 11, 1992).

95. Elmer-Dewitt, *supra* note 47, at 2.

96. *Id.* at 23.

97. Begley, *supra* note 78, at 36.

and to ensure that benefits from such employment are shared by all mankind. (Stockholm Declaration, Principle 5)

with the far more strident tone in the Rio Declaration:

To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption . . . (Rio Declaration, Principle 8)

Critics derided the weakness of the Rio provision calling for the elimination of unsustainable patterns of development. Frank McDonald of *The Irish Times* referred to the "watered-down reference to the contentious issue of over-consumption by the rich North."⁹⁸ He also pointed to the use of the milder word "should" rather than "shall" in Principle 8 of the Rio Declaration and commented that this "tells its own tale about the nit-picking at the core of UNCED."⁹⁹ It has to be remembered however, that the United States of America, whose consumer society was uppermost in the mind of those who supported Principle 8, was itself strenuous in rejecting any condemnation of its affluent way of living. American delegates insisted "over and over that 'the American life-style is not up for negotiation.'"¹⁰⁰ Given that approach by the world's only remaining superpower, the inclusion of any provision on life-style limitation may be deemed a bold and progressive development. The South may not have won entirely at Rio but its rhetoric was strident. Indian environmentalist Maneka Gandhi pointed out that one western child consumes as much as one hundred and twenty-five eastern children do. She concluded that "nearly all the environmental degradation in the east is due to consumption in the west."¹⁰¹

If the developing nations could be said to have a "wish list" at Rio, there are indications of their desires in the Rio Declaration. The eradication of poverty was primary:

All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world. (Rio Declaration Principle 5)

Among developing nations there are also disparities with respect to income, resources and degree of development. Inevitably the poorest of these nations have elicited universal compassion, compassion most recently illustrated in the United Nations operation to feed the starving people of Somalia. The leading role played by the United States of America in this operation "Restore Hope" is in sharp contrast to the

98. McDonald, *supra* note 14, at 6.

99. *Id.*

100. Elmer-Dewitt, *supra* note 47, at 42.

101. Begley, *supra* note 78, at 36.

somewhat self-centered positions espoused by American delegates at Rio, positions which drew criticism from delegates and the media alike. At Rio, delegates agreed that:

The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. (Rio Declaration, Principle 6)

At Stockholm, delegates assumed that one solution to such grinding poverty was price stability:

For the developing countries, stability of prices and adequate earnings for primary commodities and raw material are essential to environmental management since economic factors as well as ecological processes must be taken into account. (Stockholm Declaration, Principle 10)

Unfortunately, the intervening two decades saw little or no improvement in this regard. In fact, the poorest nations of the world have few alternatives to primary commodity trading. In 1972, a year after the Stockholm Conference, oil-producing countries in the Middle East combined to raise the price of oil which skyrocketed from a little over one dollar a barrel at the beginning of the 1970's to approximately forty dollars in 1979.¹⁰² Nations involved in commodity production of tin, coffee and cocoa¹⁰³ also attempted to cash in on what appeared to be a new global economic structure of more equity and fairness in trade. Their enthusiasm was to be short-lived. The lack of diversity of many developing economies—part of the imperial heritage which geared these economies to the particular needs of the colonial power—meant that often these nations, short of foreign exchange, tended to overproduce their major agricultural commodity to earn ready cash. This led to gluts and other problems as Northern nations, anxious to protect their own farming sector, protected themselves against commodity imports.¹⁰⁴ As Ivan Head explains:

In the countries of the South . . . there is in all-too-many instances an overwhelming dependence on a single economic activity. Simply stated, most economic eggs are in one basket. And to make dependence even more keen, more often than not those eggs assume the form of a single agricultural commodity—coffee, cocoa, sugar, sisal, ground-nuts, etc.—or a single mineral—tin, copper, gold, as examples.¹⁰⁵

Slower growth and a world recession have also led to a decline in the North in demand for some commodities from the South.¹⁰⁶ Ivan Head describes the consequences of such undiversified economic systems:

102. JACKSON, *supra* note 91, at 65.

103. *Id.*

104. See HEAD, *supra* note 92.

105. *Id.* at 46.

106. See JACKSON, *supra* note 91, at ch. 4.

Should world prices collapse in one of these commodities, or should access to a major market be blocked, the results can be catastrophic. If the bulk of foreign exchange earnings is derived from that product, government income falls, social programs suffer, all related economic activity (transportation, processing, etc.) stagnates, and the country finds itself in desperate circumstances. This is the reality of an undiversified economy. This is the disadvantage of a seller in a buyer's market.¹⁰⁷

Should the North succeed in developing a more equitable trading system to encourage developing nations to diversify economically and to export goods which the North no longer manufactures, there is a possibility that less Northern funding will have to be allotted for aid projects in those nations.

Developing nations in their "wish list" also included the following provision:

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. (Rio Declaration, Principle 12)

The developing nations also feared that environmentalism could become another means of justifying trade restrictions on imports into the North from Southern nations. This was a major concern at Rio. Malaysia put up a stiff resistance against all attempts at environmental labelling of Southern products. The Malaysians defeated these green labelling plans which would have enabled consumers to avoid timber from rain forest sources. As the South does not generally use eco-labelling on products from the North, the Malaysians were able to convince delegates that such practices by the North would establish a double standard.¹⁰⁸ In response to Southern apprehensions, the following terms constituted a second paragraph to Principle 12:

Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus. (Rio Declaration, Principle 12)

The last sentence of Principle 12 in the Rio Declaration is somewhat more precise than the following rather vague provision in the Stockholm

107. HEAD, *supra* note 92, at 46. 46.

108. Interview with Dr. Lim Keng Yaik, Malaysian Minister of Primary Industries (Canadian Broadcasting Corporation's News Network: B.B.C. News and Current Affairs (during June 1992)).

Declaration:

International matters concerning the protection and improvement of the environment should be handled in a co-operative spirit by all countries, big or small, on an equal footing. (Stockholm Declaration, Principle 24)

Some of the Rio formulations, though weak from an environmental point of view, have more clarity than the cloudy promises undertaken by Member States at Stockholm. With respect to world trade and environmental policies, Stockholm's submission:

The environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all, and appropriate steps should be taken by States and international organizations with a view to reaching agreement on meeting the possible national and international economic consequences resulting from the application of environmental measures. (Stockholm Declaration, Principle 11)

VIII. DEVELOPMENT: TECHNOLOGY TRANSFER

High on the South's "wish list" is the issue of science and availability of technology. The developing nations are well aware that their economic situation precludes the investment in research and development which continues to afford a safely comfortable future for the economies of the North. In a world in which technology becomes obsolete so quickly, sustained commitment to scientific research has become the key to economic progress. The South has always demanded that the North accord it the benefits of this technology so that it can also develop at a pace acceptable to its burgeoning population. This issue was as important at Stockholm as it was at Rio. The repetition and emphasis on this matter underscores the feeling among the poorer nations that they have been deprived by the rich nations not merely of the past and the present but of their future as well. Hence the issue of technology transfer was on occasion specified and sometimes inferred in the Stockholm Declaration.

Environmental deficiencies generated by the conditions of underdevelopment and natural disasters pose grave problems and can best be remedied by accelerated development through the transfer of substantial quantities of financial and technological assistance as a supplement to the domestic effort of the developing countries and such timely assistance as may be required. (Stockholm Declaration, Principle 9)

The Declaration further provides:

Science and technology, as part of their contribution to economic and social development, must be applied to the identification, avoidance and control of environmental risks and the solution of environmental problems and for the common good of mankind. (Stock-

holm Declaration, Principle 18)

It is followed by this surprisingly specific principle:

Scientific research and development in the context of environmental problems, both national and multinational, must be promoted in all countries, especially the developing countries. In this connexion, the free flow of up-to-date scientific information and transfer of experience must be supported and assisted, to facilitate the solution of environmental problems; environmental technologies should be made available to developing countries on terms which would encourage their wide dissemination without constituting an economic burden on the developing countries. (Stockholm Declaration, Principle 20)

Additionally, Principle 12 called for *additional international technical and financial assistance* for developing countries.

Unfortunately, emphasis in a body of principles, albeit an international code of principles, was no guarantee of performance by member nations who acceded to the Stockholm Declaration. In the intervening two decades between Stockholm and Rio, developing nations found that access to western technological advances was neither easy nor cheap. In 1980, eight years after the Stockholm promises, developing countries paid approximately two billion dollars in fees and royalties mainly to industrial countries.¹⁰⁹ Although there is widespread support for the sharing of technology, there is an important obstacle which prevents widespread fulfilment of this Stockholm aspiration. Industrial countries have evolved elaborate legal systems for protecting the patent rights of inventors and discoverers. The fact that many of these are in private hands makes it "difficult for governments to transfer them on noncommercial terms."¹¹⁰

Because of the importance of proprietary rights in industrialized societies, patent protection arguably acts as an incentive for the development of new technology.¹¹¹ The statistics bear out the significance of this point: in 1980, "industrialized market economies accounted for 65 per cent of the world total of patents granted, and the socialist countries of Eastern Europe held 29 per cent."¹¹² Developing countries held a mere six per cent of global patents with many being granted to non-residents.¹¹³ There is a crying need for a sharing of the world's scientific resources. As the World Commission on Environment and Development has explained,

[t]he promotion of sustainable development will require an organized effort to develop and diffuse new technologies, such as for agricultural

109. U.N. CENTRE ON TRANSNATIONAL CORPORATIONS, TRANSNATIONAL CORPORATIONS IN WORLD DEVELOPMENT THIRD SURVEY (1983).

110. Hilary F. French, *Strengthening Global Environmental Governance*, in STATE OF THE WORLD 1992 165 (Linda Stark ed., 1992).

111. *Id.*

112. COMMONWEALTH WORKING GROUP, TECHNOLOGICAL CHANGE (1985).

113. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 87.

production, renewable energy systems, and pollution control. Much of this effort will be based on the international exchange of technology: through trade in improved equipment, technology-transfer agreements, provision of experts, research collaboration and so on.¹¹⁴

Vice-President Elect of the United States, Albert Gore, has called for the "rapid creation and development of environmentally appropriate technologies— especially in the fields of energy, transportation, agriculture, building, construction, and manufacturing—capable of accommodating sustainable economic progress without the concurrent degradation of the environment," and for the quick transfer of this information to all nations especially the developing nations.¹¹⁵ He does, however, stress the importance of more secure protection for patents,¹¹⁶ in view of the fact that "the dissemination of new, appropriate technologies will likely be critical to our success in saving the environment."¹¹⁷ It will be interesting to see whether the Clinton Presidency will implement these ideas. The American people have apparently voted for a new environmental consciousness in Washington. Should this transpire, academics may, in another two decades, be lauding the fact that the government of the world's most powerful nation fulfilled this commitment made at Rio:

States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies. (Rio Declaration, Principle 9)

Although the operative word was 'should' and not the stronger 'shall', given the political climate resulting from the North-South divide at Rio and the somewhat controversial stance adopted by the American government of President George Bush,¹¹⁸ this provision for technological transfer was probably the best that could be achieved. E-Hyock Kwon, Minister of Environment for the Republic of Korea, reflected the South's perceptions at Rio when he insisted that "[t]he policies, information and technologies for sustainable development should be available and accessible to all countries."¹¹⁹

IX. IMPLEMENTATION OF ENVIRONMENTALLY-SAFE DEVELOPMENT

At Stockholm delegates concluded that the key to successful per-

114. *Id.*

115. GORE, *supra* note 79, at 306.

116. *Id.* at 320-321.

117. *Id.* at 318.

118. The United States refused to sign the Bio-Diversity Treaty because of a perceived threat to its biotechnology industry. This action earned it much criticism at Rio and around the world.

119. E-Hyock Kwon, Minister of Environment, Republic of Korea, Statement at United Nations Conference on the Environment and Development (June 11, 1992).

formance of development projects with an environmental focus was through the concept of planning, mainly to be exercised at the national level.

Rational planning constitutes an essential tool for reconciling any conflict between the needs of development and the need to protect and improve the environment. (Stockholm Declaration, Principle 14)

The concept of "planning" was applied to the issues of human settlements and urbanization:

Planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all. (Stockholm Declaration Principle 15)

and to resource management:

In order to achieve a more rational management of resources and thus to improve the environment, states should adopt an integrated and co-ordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve the human environment for the benefit of their population. (Stockholm Declaration, Principle 13)

Planning for environmental improvement was to be a fundamental task of nation states:

Appropriate national institutions must be entrusted with the task of planning, managing or controlling the environmental resources of States with the view to enhancing environmental quality. (Stockholm Declaration, Principle 17)

Although the concept of planning has now in some minds acquired a socialist tinge—social democracies like Nehru's India engaged in elaborate five year economic plans as did communist states like U.S.S.R.—there was clearly a need in the 1970's for each state to produce a coherent system for tackling environmental concerns. In the 1970's the concept of planning was the method resorted to by many of the newly-independent nations who utilized this idea to develop their fledgling economies. However, planning was easier than performance. As the 1970's and 1980's wreaked economic havoc on many developing nations, the guiding concepts of the Stockholm era had to be trimmed to the realities of the new economic world order which illustrated that economic success came not from massive governmental action plans, but from the operation of free market forces.

The concept of planning was not repeated in the Rio Declaration. Instead, more specific duties were assigned to national governments:

- 1. States shall enact effective environmental legislation. (Rio Declaration, Principle 11)*
- 2. States shall develop national law regarding liability and compen-*

sation for the victims of pollution and other environmental damage.
(Rio Declaration, Principle 13)

It is important to note that this obligation was also included in Principle 22 of the Stockholm Declaration.

Transboundary waste disposal, now a serious threat to many societies, was prohibited—albeit somewhat mildly—at Rio:

3. *States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.* (Rio Declaration, Principle 14)

4. *National authorities should endeavour to promote the internalisation of environmental costs.* (Rio Declaration, Principle 16)

5. *Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.* (Rio Declaration, Principle 17)

6. *States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States.* (Rio Declaration, Principle 18)

7. *States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.* (Rio Declaration, Principle 19)

The obligations at Rio, if adhered to by Member Nations of the United Nations, do form a cohesive body of environmental guiding principle. It is clear that Rio moved ahead of Stockholm in specifying the duties of governments.

X. DEVELOPMENT: THE APPREHENSIONS OF DEVELOPING NATIONS

In 1972 the Brazilian delegation argued that “environment is a conspiracy of the rich to keep us in a state of happy savagery.”¹²⁰ No nation reflects the change in mood from the 1970’s to the 1990’s as clearly as Brazil. Brazil’s transformation from the *bete noire* of Stockholm¹²¹ to the welcoming host at Rio dramatically illustrates the fact that developing nations have now realized that environmental concerns are their problem and not merely some Northern fad.

Confrontation erupted at Stockholm over Brazil’s plan to construct a dam on the Pirana River, which it shares with Argentina. Brazil argued that developing nations could not afford the luxury of environmental protection and lobbied strongly against a draft principle which stated: “Rele-

120. Summary Report of Canadian DEA, *supra* note 20, at 4.

121. ROWLAND, *supra* note 26, at 53.

vant information must be supplied by states on activities or developments within their jurisdiction or under their control whenever they believe, or have reason to believe, that such information is needed to avoid the risk of significant adverse effects on the environment in areas beyond their national jurisdiction."¹²² This principle, originally numbered 20, "was to be the only section of the Declaration on the Human Environment tabled and left for debate in the next meeting of the General Assembly."¹²³ When in late 1972, the United Nations General Assembly approved the Stockholm decisions, Principle 20 of the draft Declaration was not re-inserted into the final text and "had been effectively erased."¹²⁴

The consultative principle was adopted at Rio:

States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary effect and shall consult with those States at an early stage and in good faith. (Rio Declaration, Principle 19)

Developing nations were initially quite skeptical about the proposed environmental gathering at Stockholm. Development and escape from crippling poverty were uppermost in the minds of Southern governments, not environmental clean-up and conservation. As Wade Rowland comments,

[w]hen the proposal for an environment conference was first broached, opinion among the developing nations ranged from an assumption that problems relating to the environment were a concern for the highly-developed nations alone . . . to a belief that the developed nations were using environmental doomsday predictions as a racist device to keep the non-white third world at a relatively low level of development.¹²⁵

The convening of a conference of scientists and development experts from the South at Founex, Switzerland in June, 1971 served to bring the developing nations on board in support of the Stockholm agenda.¹²⁶ The meeting at Founex "had a major impact in expanding the international environment agenda beyond concerns about conservation and pollution to wider issues including flows of development assistance, trade and development."¹²⁷ The integration of development and environment had not yet occurred but this linkage was inevitable once scientific research confirmed the serious nature of global environmental decline. Participants at Founex reported that "developing countries must view the relationship between development and environment in a different perspective. In their

122. *Id.* at 53-54.

123. *Id.* at 55.

124. *Id.* at 135-136.

125. *Id.* at 47.

126. *Id.* at 48.

127. Summary Report of Canadian DEA, *supra* note 20, at 4.

context, development becomes essentially a cure for their major environmental problems."¹²⁸ This awareness that the developing world had a different set of priorities was to become central to the formulation of both the Stockholm and Rio Declarations. It was this consciousness of differing roles which made the creation of both bodies of principle a rather delicate balancing act. If the ultimate instruments were not completely satisfactory to anyone that in itself was a reflection of the level of compromise which had to be accepted for universal agreement.

The most serious apprehension of the South was that environmental concerns would impede development in the poor nations. Hence it was imperative to ensure that this did not happen. At Stockholm one way to ensure this was to keep on restating developing nation priorities. Hence, in the Stockholm Declaration, *environmental deficiencies* were attributed to *condition of underdevelopment*. (Principle 9). The requirements of developing nations for *stability of prices and adequate earnings for primary commodities and raw materials* were deemed *essential to environmental management*. (Principle 10). Most important was the following caution:

The environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries. (Stockholm Declaration, Principle 11) . . . *Resources should be made available to preserve and improve the environment, taking into account the circumstances and particular requirements of developing countries.* (Stockholm Declaration, Principle 12)

Clearly, the Stockholm Declaration conceded much to the developing nation agenda in attempting to meet the apprehensions of these nations about the possible economic threat posed by Northern concerns about environmentalism.

At Rio, the process begun at Stockholm went even further. *Developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development* (Principle 7). The rich were put on notice to eliminate *unsustainable patterns of production and consumption* (Principle 8). The South has consistently stressed the fact that it is Northern wasteful processes which are leading to environmental degradation. This discussion was no less vehement at Rio than it was at Stockholm. Indeed by 1992, the Southern delegates were armed with twenty years of depressing statistics to demonstrate both that Stockholm measures had by and large failed and that the North had created even more environmental problems in the two decades between the conferences.

The success of the South in including its agenda into the Rio Declaration can be gauged by the extent of criticism levelled at the final prod-

128. Founex Report, cited in, ROWLAND, *supra* note 26, at 49-50.

uct emerging from the long and bitter negotiating sessions which occurred over the creation of this body of principles. There was a clear feeling that environment had been subordinated to development.¹²⁹

The South's apprehensions concerning its ability to keep up with Northern environmental standards and possible resulting discrimination if it failed to do so were, to some extent, palliated by recognition that:

Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries. (Rio Declaration, Principle 11)

This principle may be compared with its Stockholm predecessor which stated:

Without prejudice to such criteria as may be agreed upon by the international community, or to standards which will have to be determined nationally, it will be essential in all cases to consider the systems of values prevailing in each country, and the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries. (Stockholm Declaration, Principle 23)

The South also insisted that trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. (Rio Declaration, Principle 12)

Finally, on this issue of development, from Stockholm to Rio, the world progressed from endorsing the essential need for development to accepting development as a human right.

Economic and social development is essential for ensuring a favourable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life. (Stockholm Declaration, Principle 8)

At Rio nations agreed that:

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations. (Rio Declaration, Principle 3)

The version above was accepted after amendment of the draft sponsored by Pakistan and China which referred to the inalienable right to development of poor nations.¹³⁰

Despite the criticism levelled often justifiably at the vagueness of the

129. York & Rusk, *supra* note 16, at 3-4.

130. *Id.*

Rio Declaration, there can be no doubt that for the world's poorest and most dispossessed, it at least affords recognition that their present economic state of deprivation has not gone unnoticed by the world. Teatao Teannaki, President of the Republic of Kiribati, stated that he was "particularly pleased to note that recognition is given to special needs of the least developed and those most vulnerable to environmental problems."¹³¹ In inching its way toward recognition of the validity of the human right to development (with environmental safeguards) the world has taken an initial step towards alleviation of the plight of millions alive today and millions more yet to be born.

XI. CONSERVATION

The Stockholm Declaration, in its rather lengthy preamble, expresses the concern which brought delegates from many nations to Sweden to deal with the problems of the environment:

The protection and improvement of the human environment is a major issue which affects the well-being of peoples and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments. (Stockholm Declaration, Preamble, ¶ 2)

Both Declarations have ambiguous, if well-intentioned principles which because of their vagueness appear to decline to the level of platitudes.

The natural resources of the earth including the air, water, land, flora and fauna and especially representative samples of natural ecosystems must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate. (Stockholm Declaration, Principle 2)

This principle is followed by an equally vague pronouncement:

The capacity of the earth to produce vital renewable resources must be maintained and, wherever practicable, restored or improved (Stockholm Declaration, Principle 3)

and this rather nebulous principle:

The non-renewable resources of the earth must be employed in such a way as to guard against the danger of their future exhaustion and to ensure that benefits from such employment are shared by all mankind. (Stockholm Declaration, Principle 5)

Collectively these appear to be classic examples of United Nations "internationalesque," a language of promises without commitments. It was left to the delegation of the United States to present the positive aspect of Principle 2 (above) in the Stockholm Declaration. The American delegate

131. Teatao Teannaki, President of the Republic of Kiribati, Statement at United Nations Conference on the Environment and Development (June 13, 1992).

declared the provision to be of "notable importance."¹³²

Realization of the weakness of these principles prompted the delegates at Rio to attempt to be more specific in terms of actions to be undertaken to achieve the Stockholm principles. This attempt was not successful:

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem (Rio Declaration, Principle 7),

and this provision:

[i]n order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it. (Rio Declaration, Principle 4)

The critical issue of conservation underlies all attempts at environmental improvement in every nation of the world. The failure of the Rio Declaration to produce a forthright pronouncement urging the world in the direction of conservation was a serious weakness. Conservation is undoubtedly the key to environmental success for the future. If we manage to conserve the earth's resources now, we can possibly progress towards the universally accepted goal of sustainable development.

XII. POLLUTER PAYS PRINCIPLE

One of the unforeseen results of the Industrial Revolution was the fact that the movement to produce and sell inexpensive manufactured goods to growing numbers of consumers implied that certain invisible costs of this revolution were borne by society as a whole. Minerals were often strip-mined and the earth destroyed in the frenzy to gain raw materials. Agricultural land was rapidly gobbled up by the ever-growing urban and suburban concrete jungles which became the norm in much of North America and Western Europe. Factories polluted the air and tainted the water. Frequently, they were situated next to rivers and lakes into which sewage was regularly dumped without much thought of future consequences. Municipal sewage systems were also constructed to dump raw waste into oceans. Eventually this decades-long activity caught up with Mankind. The realization then set in that industrialists in particular had made free use of air and water supplies to pollute and befoul them at no cost to themselves. These were hidden costs which the entire national community and eventually the entire planetary community would pay. As Ben Jackson comments:

The stress on economic growth as the goal for development also fails to take account of the future impact of present actions. It places the emphasis on profitable living now without considering the

132. ROWLAND, *supra* note 26, at 100.

price—environmentally (and therefore probably economically)—to be paid later. For many environmentalists the greatest weakness of the 'more growth' solution is its failure to anticipate the future threat to the environment.¹³³

In terms of past actions which have resulted in pollution, the clean-up costs are staggering. "Estimates of the cost of remedial steps worldwide to overcome the effects of pollution range as high as U.S. \$300 billion annually."¹³⁴ The implementation of an environment-oriented agenda worldwide will entail not merely clean-up of past problems but action to prevent future pollution. Prior to the Earth Summit, Maurice Strong suggested that the costs to implement the ambitious Rio program would amount to an annual sum of \$625 billion, with approximately eighty per cent of the costs being borne by developing nations, supplemented by an annual sum of \$125 billion from the developed nations. Strong explained that as development assistance already totalled approximately \$55 billion, another \$70 billion would be required.¹³⁵

The irresponsible consumption of air and water has resulted in much of the damage which the world now has to remedy. However much nations may balk at Strong's figures, the harsh reality is that the world will pay for pollution, either now or later. The World Commission on Environment and Development explained the problem:

Air and water have traditionally been regarded as 'free goods,' but the enormous costs to society of past and present pollution show that they are not free. The environmental costs of economic activity are not encountered until the assimilative capacity of the environment has been exceeded. Beyond that point, they cannot be avoided. They will be paid. The policy question is how and by whom they will be paid, not whether. Basically, there are only two ways. The costs can be 'externalized'—that is, transferred to various segments of the community in the form of damage costs to human health, property, and ecosystems. Or they can [be] 'internalized'—paid by the enterprise. The enterprise may invest in measures to prevent the damages and, if the market for its product allows, pass the costs along to the consumer. Or it may invest in measures to restore unavoidable damage—replanting forests, restocking fish, rehabilitating land after mining. Or it may compensate victims of health and property damage. In these cases too, the costs may be passed on to the consumer.¹³⁶

A growing realization that costs must rise to pay for past pollution has been balanced with a determination to ensure that in future polluters and not entire populations bear the burden of their actions. As Ivan Head comments: "The age-old practices of discharging wastes into flowing streams, and fumes into the atmosphere to be blown away by prevailing

133. JACKSON, *supra* note 91, at 180.

134. HEAD, *supra* note 92, at 91.

135. *Leader of Rio Conference Predicts Success*, *supra* note 5, at 3.

136. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 220-221.

winds, are now subject not just to criticism but, increasingly, to censure and judicial constraint."¹³⁷ The polluter pays principle is the logical consequence of such thinking. The aim of the policy is to force manufacturers to internalize environmental costs and transfer these to their prices of products.¹³⁸ Member countries of the Organization for Economic Cooperation and Development (OECD based in Paris) agreed in 1972, the year of the Stockholm Conference, to adhere to the "Polluter Pays Principle" (PPP) in their environmental policies.¹³⁹

The success of incorporating environmental costs into product prices has been largely in the developed nations where industries have been able to afford conversion to safer methods of manufacture and where consumers have been able to afford the higher prices. The developing nations have not been as successful particularly with respect to their exports because environmental "costs continue to be borne entirely domestically, largely in the form of damage costs to human health, property, and ecosystems."¹⁴⁰ Nor is this situation seen as seriously dangerous by a number of developing nation governments.

At Stockholm, some developing nations demonstrated their unwillingness to shoulder the financial burden of environmentally unsafe production possibly because this would blunt their competitive edge in world trade. The idea that they could be compensated for trade losses was rejected by the leading developed nations like the United States, Canada and Britain.¹⁴¹ "Developing nations . . . argued loud and long that to expect the indigents of the world to accept financial responsibility in environmental trade upsets, on exactly the same basis as the wealthy industrial nations, was not only unfair but palpably absurd. The developing nations had their backs to the wall as it was."¹⁴² Given this defensive stance, it was almost inevitable that at Stockholm states emphasized that:

The environmental policies of all states should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all, and appropriate steps should be taken by States and international organization with a view to reaching agreement on meeting the possible national and international economic consequences resulting from the application of environmental measures. (Stockholm Declaration, Principle 11)

Aside from a provision that *States shall co-operate to develop further the international law regarding liability and compensation for the vic-*

137. HEAD, *supra* note 92, at 91.

138. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 221.

139. OECD, *Guiding Principles Concerning International Economic Aspects of Environmental Policies*, Council Recommendation C(72)128, Paris, May 26, 1972, noted in WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 221.

140. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 83.

141. ROWLAND, *supra* note 26, at 57.

142. *Id.*

tims of pollution, (Stockholm Declaration, Principle 22) there was no adherence to the Polluter Pays Principle in this instrument prepared in 1972.

By 1992, the mood had changed as the developing nations became increasingly aware of the hidden costs of their competitive trading edge in certain commodities and products. The social consequences were visible from Africa to Southeast Asia. Hence at Rio the following principle was adopted:

National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment. (Rio Declaration, Principle 16)

Delegates at Rio went further to prevent states from risking the environment and using the justification that there was scientific uncertainty about the dangers posed by their activities:

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. (Rio Declaration, Principle 15)

Whether or not these provisions will be implemented globally remains to be seen. Certainly, in the post-Rio process now underway, it is critical that world public opinion monitor potential polluters in every nation to ensure that the Polluter Pays Principle is implemented. Although nations are not legally bound by the principles of Rio, in this instance, the moral commitment might well be enforced by citizens whose vigilance may be the only way to ensure that all of society does not continue to suffer from the actions of a few.

XIII. PUBLIC PARTICIPATION IN ENVIRONMENTAL IMPROVEMENT

Environmental improvement is unlike any other major issue because it demands the commitment and action of every man, woman and child on this planet. Because environmental decline is caused by people, the clean-up and prevention of pollution demand the active and continuing participation of citizens in every nation. Hence it is even more a people's issue than it is a governmental one. Although the restoration of major polluted sites requires government funding and action, the prevention of pollution involves a thoughtful consideration about the fate of the planet in each and every human being who inhabits it. Environmental consciousness has grown on this planet because of the dedication of thousands of men and women in every nation who have created, from a grass-roots beginning, a movement which is now global and which can now compel governments to act according to its aspirations. Delegates at Stockholm were

aware of the significance of the popular factor in raising environmental concerns:

To achieve this environmental goal will demand the acceptance of responsibility by citizens and communities and by enterprises and institutions at every level, all sharing equitably in common efforts. Individuals in all walks of life as well as organizations in many fields, by their values and the sum of their actions, will shape the world environment of the future . . . The Conference calls upon Governments and peoples to exert common effort for the preservation and improvement of the human environment, for the benefit of all the people and for their posterity. (Stockholm Declaration, Preamble 7)

Environmentalism became a serious obligation for the individual:

Man bears a solemn responsibility to protect and improve the environment for present and future generations. (Stockholm Declaration Principle 1)

This rather vague exhortation followed:

The just struggle of the peoples of all countries against pollution should be supported. (Stockholm Declaration, Principle 6)

The most useful method specified was to be education about environmental concerns.

Education in environmental matters, for the younger generation as well as adults, giving due consideration to the underprivileged, is essential in order to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension. It is also essential that mass media . . . disseminate information of an educational nature, on the need to protect and improve the environment in order to enable man to develop in every respect. (Stockholm Decree, Principle 19)

In the twenty years between the United Nations Conference on the Human Environment and the United Nations Conference on Environment and Development, the level of public involvement has escalated to the point at which governments appear to be led—some might say “dragged”—towards environmental consciousness by their populations. Even though the high-minded intentions of the Stockholm Conference did not materialize as successfully as delegates had hoped, the sheer scope of environmental enthusiasm was given a tremendous boost by the Conference. The level of popular support for the cause of averting planetary decline spawned its own growth industry in terms of volunteer non-governmental organizations devoted to environmental concerns, media attention to the topic, investigative reporting of governmental failures in safeguarding against pollution, and committees of concerned business men who became quickly aware of the need to cater to this growing phenomenon or be boycotted and financially destroyed by it. Prime Minister John Major of the

United Kingdom commented at UNCED on this dramatic development: "The environment is no longer the specialist concern of a few—it has become the vital interest of us all."¹⁴³

The galvanized public support for the environmental cause has also been a direct consequence of the fact that governments have dragged their feet over their Stockholm commitments and the problems of global pollution have escalated to almost catastrophic levels. His Majesty the King of Sweden, addressing the opening of UNCED, emphasized this concern when he reminded delegates about the uneven progress following Stockholm's great promise: "There has been great environmental improvement on the local, national and regional levels, while the global threats are more serious than ever."¹⁴⁴ The recognition that environmental success—or what there was of it—was largely because of local initiative, also underscored the significance of involving the public in not only the debate but in the performance of environmental clean-up. At Rio delegates decided to forge a new global partnership

[w]ith the goal of establishing a new and equitable global partnership through the creation of new levels of cooperation among States, key sectors of societies and people (Rio Declaration, Preamble, ¶ 4)

There was clearly a recognition, brilliantly stated by Maurice Strong, that "the 'carrying capacity' of the Earth could only sustain present and future generations 'if it is matched by the caring capacity of its people and its leaders.'"¹⁴⁵ Accordingly, delegates included the following important principle in the Rio Declaration:

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. (Rio Declaration, Principle 10)

It was important not merely to encourage public involvement. It was felt to be equally important to enable the people to gain information about environmental concerns from public authorities. There is a growing realization that governments might attempt to block public access to information about risks to health. The way in which the government of U.S.S.R. handled the Chernobyl disaster is only one of the more glaring and obvious examples of the manner in which governments seek instinctively to conceal rather than reveal their mistakes. "A secret Soviet decree prohibited doctors from diagnosing illnesses as radiation-induced."¹⁴⁶ Such cover-ups can, as occurred after the Chernobyl incident, have both

143. John Major, Prime Minister of the United Kingdom, Statement at United Nations Conference on the Environment and Development (June 12, 1992).

144. His Majesty, the King of Sweden, Statement at United Nations Conference on Environment and Development (June 3, 1992).

145. Frank McDonald, *Compromises Produce Fragile Agreement at Earth Summit*, IRISH TIMES, June 15, 1992, at 1.

146. Lenssen, *supra* note 85.

national and international consequences. Probably, with that example in mind, at Rio delegates decided:

At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided. (Rio Declaration, Principle 10)

The mandatory tone of this provision makes it a prime example of the kind of language which should have been included throughout the Rio Declaration. It is in the forthright formulation of such provisions that the Rio Declaration moved the world in a progressive direction. Although the non-binding nature of this instrument poses some problems for any individual or group challenging secretiveness in a government, the very fact that this principle exists, in such strong language serves notice on governments that the new world order includes openness and free public access in matters of public interest. Had the entire declaration been formulated in such pungent tones, it could have "provided a vision of how the people of the world could survive together in the next century."¹⁴⁷

The concept of a global partnership attracted considerable attention at Rio. The Indonesian delegate, Dr. Emil Salim made the point that the Rio Declaration "should . . . pave the way . . . to forge a new global partnership between nations and peoples, a partnership in which rights and obligations are equitably shared by all, a global partnership based on a renewed and improved division of labor between nations and an equally improved sharing of benefits and efforts between people."¹⁴⁸ The goal of the partnership would be sustainable development and proper management of the planet's resources.¹⁴⁹

However worthwhile an exercise it may be, the framing of provisions about global partnership will not automatically guarantee success for the goals of environmentalism. As Vincent Perera, Sri Lanka's Minister of Environment and Parliamentary Affairs, explained, "UNCED . . . marks the establishment of the global partnership. But the test of the partnership is in its implementation."¹⁵⁰

147. GLOBE AND MAIL, June 15, 1992, at A8.

148. Dr. Emil Salim, State Minister for Population and the Environment of the Republic of Indonesia, Statement at United Nations Conference on the Environment and Development (June 5, 1992).

149. K.K.S. Dadzie, Secretary-General of the United Nations Conference on Trade and Development, Statement at United Nations Conference on the Environment and Development (June 5, 1992).

150. Vincent Perera, Sri Lanka's Minister of Environment and Parliamentary Affairs, Statement at United Nations Conference on the Environment and Development (June 3-14, 1992).

XIV. WAR AS A SOURCE OF ENVIRONMENTAL CONCERN

The environmental group Greenpeace produced a critique of the Rio Declaration in which it alleged that in the creation of the declaration substance became immaterial as the desire to write a text became the driving force.¹⁵¹ Nowhere is this point more evident than in the provision about warfare. Twenty years earlier, delegates at Stockholm had agreed that:

Man and his environment must be spared the effects of nuclear weapons and all other means of mass destruction. States must strive to reach prompt agreement, in the relevant international organs, on the elimination and complete destruction of such weapons. (Stockholm Declaration, Principle 26)

Frank McDonald, writing in *The Irish Times*, commented: "Twenty years later, under pressure from the US which fought for the exclusion of all 'Stockholm-type language' on this issue,"¹⁵² the Rio Declaration merely and mildly suggested that

Peace, development and environmental protection are interdependent and indivisible, (Rio Declaration, Principle 25),

and that

Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary. (Rio Declaration, Principle 24)

States were also urged to

resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations. (Rio Declaration, Principle 26)

Greenpeace commented: "If this is progress, we are in deep, deep trouble."¹⁵³

An old African proverb states that when two elephants fight, it's always the grass that gets hurt.¹⁵⁴ Although the existence of a nuclear deterrent kept the two superpowers, the United States and the Soviet Union, from direct confrontation during the Cold War, each superpower patronized a number of client states: smaller, often poor nations whose petty conflicts with neighboring countries escalated and became part of Cold War politics. Each superpower armed its client states and fought its Cold War rival to the last drop of blood shed by the men and women of developing nations. No region of the world was exempt from this war by proxy which became the norm during the Cold War, in Latin America,

151. McDonald, *supra* note 14.

152. *Id.* at 7:5.

153. *Id.*

154. JACKSON, *supra* note 91, at 150.

the Middle East, Africa and Southeast Asia. Having a nuclear umbrella did not mean that there was less war and less misery in the world. War only became a game which rich nations played at the expense of poor countries. Between the Cold War years of 1945 and 1989, one hundred and twenty-seven wars were fought on this planet and "[a]ll but two of them have been in or between developing countries."¹⁵⁵ Occasionally, the superpower was itself dragged into the fray, as the United States was in Vietnam and the U.S.S.R. in Afghanistan.

The decade of the 1980s may well be recorded as one of the most brutal in this or any other century. It was a decade of wars The decade just past has seen the lengthy slaughter of the Iraq-Iran War as well as bloody civil wars—many of them surrogate conflicts supported or sponsored by superpower champions—in Afghanistan, Angola, Cambodia, El Salvador, Ethiopia, Guatemala, Lebanon, Mozambique, Nicaragua, Peru, Philippines, Sri Lanka and Sudan. It is estimated that in all these wars the death count exceeded 4 million.¹⁵⁶

Whether the wars were civil or regional or international, the price paid in terms of human life and environmental destruction was always severe. Growing realization of the direct and indirect costs of war prompted delegates to urge UNCED in the direction of denunciation, if not renunciation of warfare. Dr. Zvonimir Separovic, representing the new Republic of Croatia, told delegates that "[w]ar is highly detrimental to human wellbeing, to the human environment and development." He reminded delegates of the devastation war had caused in the former Yugoslav territory and urged the Earth Summit to consider the "aggressive nature of human behaviour expressed in violence against other human beings and the environment in the form of war." Indicating that his country's contribution to UNCED "is centred on the environmental impact of war," Dr. Separovic insisted that the Rio Declaration "include a condemnation of war and express concern for the irreparable consequences of war operations," as well as a call for "international action against a new kind of crime which might be called ecocide."¹⁵⁷

Warfare also diverts the resources and funds of both developed and developing nations away from health, education and environmental clean-up—progressive, worthwhile avenues—to unproductive devastation which exacerbates human misery and environmental degradation. The World Commission on Environment and Development commented that "[c]ompetitive arms races breed insecurity among nations through spirals of reciprocal fears. Nations need to muster resources to combat environmental degradation and mass poverty. By misdirecting scarce resources,

155. HEAD, *supra* note 92, at 6.

156. *Id.* at 116-117.

157. Dr. Zvonimir Separovic, Minister in the Government of the Republic of Croatia, Statement at United Nations Conference on the Environment and Development (June 10, 1992).

arms races contribute further to insecurity."¹⁵⁸ The amounts involved in military research, production and consumption, if directed to environmental and human concerns could have a dramatic and immediate impact. Approximate estimates would suggest that global military spending had already reached \$1000 billion by 1986.¹⁵⁹ "Annual military spending is still greater than the combined income of half of humanity."¹⁶⁰

Developing nations, where most of the wars and consequent death and environmental degradation occur, continue to divert increasing amounts of their scarce resources to the military. "Since 1960, developing countries have increased their military expenditures at a rate that is double the rise in per capita income. As a percentage of GNP, developing countries dedicate 1.6 per cent to health care, compared to 5.2 per cent to military expenditures."¹⁶¹ In human terms, military expenditure and debt servicing in the developing world (according to UNICEF estimates), cost each family in those poor nations approximately four hundred dollars per year.¹⁶² Weapons imports from the North cost developing countries approximately \$39 billion per year.¹⁶³ "In 1988, military spending in poor countries totalled \$145 billion."¹⁶⁴ By the time the World Commission on Environment and Development contributed to the debate on this and related issues, the global arms trade, much of it in the developing world, had consumed over three hundred billion dollars.¹⁶⁵ Though there was much wringing of hands over this situation and the consequent loss of resources for more productive uses, delegates at Rio were unable to agree on a firm principled stand against warfare and its consequences. With respect to this provision, the situation at Rio was clearly a regression from the formulation agreed to at Stockholm. It was left to a delegate from the Middle East - an area which has recently witnessed the horrors of environmental warfare to view the warfare provision in an optimistic light. Rashid Abdullah Al-Noaimi, Minister of Foreign Affairs of the United Arab Emirates, informed delegates at Rio that his nations welcomed the principle "enunciated in the Declaration . . . which calls upon states to respect the rules of international law which provide for the protection of the environment in times of armed conflict."¹⁶⁶ One can only hope that the type of environmental havoc wrought on the Persian Gulf by Saddam Hussein will not be repeated in other conflict-ridden parts of

158. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 297.

159. *Id.* at 306 n.14.

160. JACKSON, *supra* note 91, at 174.

161. HEAD, *supra* note 92, at 135.

162. UNICEF, THE STATE OF THE WORLD'S CHILDREN, *cited in* JACKSON, *supra* note 91, at 174.

163. HEAD, *supra* note 92, at 6.

164. JACKSON, *supra* note 91, at 174.

165. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 300.

166. Rashid Abdullah Al-Noaimi, Minister of Foreign Affairs of the United Arab Emirates, Statement at United Nations Conference on the Environment and Development (June 9, 1992).

the world.

XV. PROVISIONS UNIQUE TO THE STOCKHOLM DECLARATION

Although we have thus far compared and on occasion contrasted the principles which emerged from both environmental conferences, it is interesting to note the moments where the two documents diverge completely because these areas are also indicative of trends and tendencies of each era and also illustrative of particular weaknesses in the particular declaration which failed to enunciate those principles. The present analysis will concentrate on the principles themselves rather than the preambles.

A. *Oceanic Pollution*

The issue of oceanic pollution was considered at Stockholm and the following principle adopted:

States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea. (Stockholm Declaration, Principle 7)

Twenty years of oceanic pollution continued despite this high-minded principle. The issue of oceanic pollution is now so serious that it can be considered a global catastrophe in the making. There is hardly an ocean now which does not regularly receive sewage and waste. As Philip Elmer-Dewitt commented:

Anyone who has been near the seashore lately—or listened to Jacques-Yves Cousteau on TV—knows that the oceans are a mess, littered with plastic and tar balls and rapidly losing fish. But the garbage dumps, the oil spills, the sewage discharges, the drift nets and factory ships are only the most visible problems. The real threats to the oceans, accounting for 70% to 80% of all maritime pollution, are the sediment and contaminants that flow into the seas from land-based sources—topsoil, fertilizers, pesticides and all manner of industrial wastes.¹⁶⁷

The most apparent form of pollution in the world's oceans occurs when ships carrying oil run aground, an event which is happening with alarming frequency. Recently, the whole world is watched the horror of oil pouring from the wrecked tanker, the Liberian-registered Braer, which ran aground and crashed on January 5, 1993 on the southern tip of Mainland, the largest of the Shetland Islands, approximately one hundred and sixty kilometres north-east of Scotland.¹⁶⁸ The ship was carrying about

167. Elmer-Dewitt, *supra* note 47, at 44.

168. Alan Freeman & Rheal Seguin, *Oil Spill Raises Concern in Canada*, GLOBE AND MAIL, Jan. 7, 1993, at 1, and Associated Press, *Scotland Counts Cost of Oil Spill to Envi-*

ninety-three million litres of oil on its journey from Norway to Canada. All this oil spilling into the ocean would be "twice the amount that was dumped when the Exxon Valdez hit a reef in Alaska on March 24, 1989."¹⁶⁹ Although these dramatic oil spills catch global attention, it also has to be remembered that oil pollution of the oceans goes on continuously. According to the United Nations, "about 600,000 tons of oil enter the oceans each year as a result of normal shipping operations."¹⁷⁰ It has also been estimated that about six and a half million tons of litter are cast into the world's oceans annually.¹⁷¹

There is no dearth of international agreements to protect the oceans. The Antarctica Treaty signed in 1959 and a subsequent Agreement of 1991 protect that fragile region with regulation of waste disposal and marine pollution.¹⁷² Best known of the plethora of treaties is the 1982 Law of the Sea Treaty which is "the product of more than a decade of often contentious negotiations."¹⁷³ Participating states are expected to control diverse sources of ocean pollution, "including discharges and runoff from cities and agriculture, ocean dumping of wastes, releases from boats, oil exploration and drilling, mining, and air pollution deposited in the ocean."¹⁷⁴ This controversy-dogged convention also requires "express prior approval by the coastal state for dumping in the territorial sea, in the EEZs [Exclusive Economic Zones], and onto the continental shelf States also have an obligation under the Law of the Sea to ensure that their activities do not injure the health and environment of neighbouring states and the commons."¹⁷⁵ A decade after its completion, the Law of the Sea Convention had still not entered into force because the implementation required ratification by sixty signatory nations. Environmentalists, like Hilary French, have suggested with respect to some provisions that "the position of the U.S. government was the biggest obstacle."¹⁷⁶ Despite this opposition, a number of the provisions of the convention have been accepted as customary international law and are implemented by various nations,¹⁷⁷ "with positive effects on fish stocks, ocean pollution, and freedom of the seas."¹⁷⁸

Sixty-seven nations have signed on as contracting parties to the Con-

ronment, *GLOBE AND MAIL*, Jan. 7, 1993, at A6.

169. Associated Press, *Scotland Counts Cost of Oil Spill to Environment*, *GLOBE AND MAIL*, Jan. 7, 1993, at A6.

170. Scott Stevens *et al.*, *Global Resources and Systems at Risk*, *CHRISTIAN SCI. MONITOR*, June 2, 1992, at 10.

171. Elmer-Dewitt, *supra* note 47, at 46.

172. FRENCH, *supra* note 110, at 156.

173. *Id.* at 158.

174. FRENCH, *supra* note 110, at 158 citing Douglas M. Johnston, *Marine Pollution Agreements: Successes and Problems*, in *INTERNATIONAL ENVIRONMENTAL DIPLOMACY*, (John E. Carroll ed., 1987).

175. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 272.

176. FRENCH, *supra* note 110, at 159.

177. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 274.

178. FRENCH, *supra* note 110, at 159.

vention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (more commonly referred to as the London Dumping Convention). This convention was established in 1972, the year of the Stockholm Conference, and entered into force in 1975.¹⁷⁹ The convention prohibited the dumping of radioactive and other forms of dangerous waste into the ocean. It now "outlaws dumping of all forms of industrial waste by 1995; a ban on ocean incineration of wastes is to take effect by the end of 1994."¹⁸⁰ Clearly, the post Stockholm process was not very successful in protecting the oceans from either deliberate dumping or accidental pollution. This is an area where very tough international law is called for, law which stiffens penalties and liabilities to such a point that shipping companies are deterred from using any but the most seaworthy ships. A very stringent regime of fines for deliberate polluters is one possible solution. Nations have to be made to abide by their pledge to uphold the London Dumping Convention. This commitment states that contracting parties will "take all practical steps to prevent pollution of the sea by the dumping of waste and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea."¹⁸¹ If the Braer disaster in Scotland increases public awareness, it could result in more "aggressive action to prevent oil spills, increase inspection of foreign ships and improve emergency preparedness."¹⁸²

At the Rio Conference in 1992, there was awareness of the serious nature of global pollution of the oceans. Kinza Clodumar, Minister of Finance for the Republic of Nauru in the Central Pacific, called for "an immediate and permanent ban on the deliberate dumping of all toxic materials into the oceans, including especially radioactive wastes."¹⁸³ The delegate from Nauru reminded his colleagues at the Earth Summit that

dumping at sea accounts for only a fraction of ocean pollution. Three fourths of ocean pollutants enter directly from land, either in runoff or through the air Ocean pollution from land based sources is an issue that is central to the health of the biosphere. The global community can ignore the issue only at its increasing peril.¹⁸⁴

A delegate from a maritime nation thousands of miles from Nauru was similarly concerned. Thorbjorn Berntsen, Minister of Environment of Norway, emphasized the particular attention his nation has paid to degradation of the marine environment. He proposed the curbing of land based pollution, strengthening of rules and inspection routines applicable

179. *Minister Praises Contribution of London Dumping Convention in Protecting Marine Environment*, British Information Services, Ottawa, Nov. 12, 1992.

180. FRENCH, *supra* note 110, at 156.

181. British Information Services, *supra* note 179.

182. Freeman & Seguin, *supra* note 168, at 1.

183. Kinza Clodumar, Minister of Finance, Republic of Nauru, Statement at United Nations Conference on the Environment and Development (June 9, 1992).

184. *Id.*

to global shipping and a permanent moratorium on ocean dumping of radioactive waste. The Norwegian delegate also pointed out that "contaminated nuclear production sites and potential runoff from more or less casually selected land based deposits represent a threat to the marine environment."¹⁸⁵ There was an evident and widespread interest in prohibiting ocean dumping and controlling the level of ocean pollution.

Unfortunately, this obvious level of concern did not translate into any specific recommendations which were incorporated into the Rio Declaration. There were no provision in that instrument which specifically addressed the issue of the oceans, although it could be argued that the various principles on transboundary pollution might be applicable. Given the seriousness and escalation of the problem, and despite the existence of several international treaties and the plea of the World Commission on Environment and Development ("the most significant initial action that nations can take in the interests of the oceans' threatened life-support system is to ratify the Law of the Sea Convention"¹⁸⁶), inclusion of a precise formulation on the oceans in the Rio Declaration would have been not only appropriate but timely. In this very important matter, Rio demonstrated a regression from the stand taken at Stockholm.

To be fair to the delegates at Rio, the issue of the oceans does form an important chapter of the enormous document, Agenda 21.¹⁸⁷ In early April 1992, delegates attending the Fourth Session of the Preparatory Committee for UNCED "agreed to strengthen existing global agreements aimed at controlling land-based sources of marine pollution—fertilizers, pesticides, and the like, which account for more than two-thirds of ocean pollution. They have also agreed to improve collection of data on both marine resources and damage from pollution."¹⁸⁸ Simultaneously with the global meeting in Rio, a smaller group of delegates representing twenty-nine countries attended a Vessel Traffic Service symposium in Vancouver, Canada. The symposium addressed concerns and solutions for ship-source pollution. The remedies for this problem ranged from improved surveillance to enhanced management competence to better communications between nations.¹⁸⁹

The necessity for inclusion of a provision specifically related to oceans in the Rio Declaration can hardly be underestimated. The declaration is likely to be the most widely-read of all the formulations to emerge from that enormous conference. If, as its creators hope, the declaration serves as an inspiration for future action, exclusion of the issue of the oceans cannot be justified.

185. Statement by Thorbjorn Bernsten, Minister of Environment of Norway, UNCED, Rio, June 4, 1992.

186. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 274.

187. See Chapter 17, Agenda 21, United Nations Document, UNCED, Rio, 1992.

188. Stevens, *supra* note 170, at 10.

189. Alan Daniels, *Sea Summit Targets Polluters: 29 Nations Attending Vancouver*, VANCOUVER SUN, June 9, 1992, at D2.

In the Earth's wheel of life, the oceans provide the balance. Covering over 70 per cent of the planet's surface, they play a critical role in maintaining its life-support systems, in moderating its climate, and in sustaining animals and plants, including minute, oxygen-producing phytoplankton. They provide protein, transportation, energy, employment, recreation, and other economic, social, and cultural activities.¹⁹⁰

B. *Wildlife*

In *Earth in the Balance*, a thought-provoking analysis of the planet's environmental problems, Vice-President Al Gore commented that "we are creating a world that is hostile to wildness, that seems to prefer concrete to natural landscapes."¹⁹¹ In creating and spreading our cement jungle civilizations, the human species has exhibited not merely its primacy in the biological scheme of things, but its capacity ruthlessly to destroy the natural habitat of countless thousands of species which share the Earth with us. Although environmental action plans propel us to clean and clear the air, atmosphere, water, and land which we have degraded, environmental awareness counsels us to remember the damage we do every day to these millions of large and small inhabitants of the planet whose very survival is unfortunately in our all-too callous hands. The ultimate ethic of environmental consciousness is to learn again to perceive ourselves not as the masters of the Earth but as one of its life forms. Our survival now depends on a merging of the actions, awareness, and consciousness implicit in a commitment to environmental goals.

At the Stockholm Conference, delegates pointed us in the right direction:

Man has a special responsibility to safeguard and wisely manage the heritage of wildlife and its habitat which are now gravely imperilled by a combination of adverse factors. Nature conservation including wildlife must therefore receive importance in planning for economic development. (Stockholm Declaration, Principle 4)

This significant principle had matured by the time the Earth Summit met at Rio, into an international treaty—the Convention on Biological Diversity¹⁹²—which was signed and is currently being ratified by a number of nations. The concept of wildlife has also been enlarged to include life forms in their original pristine natural habitat and considerable attention is now being paid to the preservation of the homes of insects, animals and plants, not merely for idealistic purposes, but because some of the genetic material carried by these varied species could provide innumerable medical and scientific benefits for human use in the future. "We do not know, to within the nearest 20 million, how many species there

190. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 262.

191. GORE, *supra* note 79, at 26.

192. See United Nations Document, "Convention on Biological Diversity," June 5, 1992, reprinted in 31 I.L.M. 818, 822 (1992).

really are on earth," comments Paul Harrison.¹⁹³ It is incumbent on the human species to ensure the survival of at least the majority of the estimated four to thirty million species.¹⁹⁴ Yet, "[t]here is a growing scientific consensus that species are disappearing at rates never before witnessed on the planet."¹⁹⁵ If we estimate the existence of about thirty million species today, we may annually be destroying about seventeen thousand five hundred of these life forms.¹⁹⁶

The destruction of species is caused by a combination of human need and greed. The burgeoning human population is pushing into the natural habitats of other species, altering the environment so drastically that no other species can co-exist in the same space. In Kenya, the population is "pressing so hard on parks that protected land [a mere six percent of this territory] is steadily being lost to invading farmers."¹⁹⁷ As Mrs. Rahab Mwatha of the Greenbelt Movement in Kenya commented: "We are awakening to the fact that if Africa is dying it is because her environment has been plundered, overexploited, and neglected."¹⁹⁸ The rise in human population has generated extraordinary demands for food and has almost decimated the once abundant Atlantic fisheries off Newfoundland in the East of Canada. In Latin American and parts of Asia, deforestation, brought on by expanding population and the urge to develop, takes a daily toll in species extinction.¹⁹⁹

It was realized at the Stockholm Conference that "protection of habitat is the single most effective means of conserving diversity,"²⁰⁰ hence the mention of habitat in Principle 4 (above). Although nations can take credit for preparing and signing an international Convention on Biodiversity at the Earth Summit, it is significant to note that there was no provision pertaining to this all-important issue in the Rio Declaration. Given the ramifications and implications of the threat of species extinction which is occurring relentlessly every day, it might have been wise to lay emphasis on this matter in the Rio Declaration in order to bring it to public attention. The fact that there is now a treaty in existence and that numerous governments have signed it hardly solves the problem of the survival of species on this planet. The international convention is only an initial step in a very long process. The inclusion of a provision on biodiversity in the Rio Declaration could have served to popularize the con-

193. PAUL HARRISON, *THE THIRD REVOLUTION, ENVIRONMENT, POPULATION AND A SUSTAINABLE WORLD* 59 (1992).

194. *Id.* at 59.

195. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 148.

196. Caldicott, *supra* note 71, at 96 citing Edward O. Wilson, *Threats to Biodiversity*, *SCI. AM.*, Sept. 1989, 108-16.

197. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 153.

198. *Id.* at 154 (quoting statement from Mrs. Rahab W. Mwatha, *The Greenbelt Movement*, (WCED Public Hearing, Nairobi, Sept. 23, 1986)).

199. See John C. Ryan, *Conserving Biological Diversity*, in *STATE OF THE WORLD 1992* (Linda Starke ed., 1992).

200. *Id.* at 24.

cept of species conservation and made it more of a people's issue than it is at the present time. The issue of biodiversity may be too specific for the general principles incorporated into the Rio Declaration. The primacy of the issue, however, and the fact that the declaration is a veritable hodge-podge of articles, some of which are more precise than others, would argue in favor of its inclusion.

While it could be suggested that the biodiversity treaty made the principle redundant, it is also important to remember that the Declarations at Stockholm and Rio are intended to serve as signposts for all the people of the planet. It would have been worthwhile in such an instrument to include an issue which is of crucial importance environmentally, economically, and in the long term for the survival of our human species as well. The existence of a binding treaty in international law ought not to preclude adherence to the general principle of species conservation in a document such as the Rio Declaration. It is likely that in future years, far more people will read the Rio Declaration than the treaty on Biodiversity. If the point of the Declaration was to inform, encourage and enthuse at the popular level, so important a feature of environmental concern ought to have been included with no prejudice to the legally binding commitments entered into by nations which signed the Biodiversity Convention.

XVI. PRINCIPLES UNIQUE TO THE RIO DECLARATION

A. *Women*

If international instruments can be considered a reflection of the times in which they are formulated, then the Rio Declaration bowed to the inevitable in recognizing the significance of women to society and to the environmental movement. The twenty years since Stockholm have witnessed the implementation in most areas of the developed world of the women's revolution with its resulting shift in attitudes among both men and women about their roles and importance in society. With this revolution has come a growing awareness of the injustice of the past treatment of women and a consequent determination to rectify that situation. Unfortunately, the improvement in the condition of women has been mixed, when the subject is viewed internationally. In developing countries, the poorer, uneducated women still suffer a life-long burden caused simply by their gender. Such burdens can range from female infanticide in China to occasional widow burnings in India. Garrick Utley of NBC television reported that recently in Somalia some women accused of adultery had been stoned to death.²⁰¹ Child marriage, lack of education, heavy domestic toil and often grinding physical farm labor are the fate of thousands of women around the world. It was therefore timely and fitting that delegates at the Earth Summit endorsed the following principle for inclusion in the Rio Declaration:

201. Garrick Utley (NBC Evening News, Jan. 9, 1993).

Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development. (Rio Declaration, Principle 20)

There was widespread support for inclusion of a provision concerning women. Margaret Shields, Director of the United Nations Research and Training Institute for the Advancement of Women, reminded delegates at UNCED that:

Women are not new to environmental concerns. They are the people who must walk further to collect fuel if an area is deforested. They are the people most affected by pollution of water supplies when they or their families become ill as a result. In rural areas, women are often placed at greatest risk from the use of dangerous products and not only women but also their infant and newborn children. Most important, women are the people who could make an essential contribution to any debate about the fundamental realities of environmental degradation. They are the ultimate consumers of environmental management decisions.²⁰²

The problems of women in developing nations were mentioned at Rio and in the process leading up to the Earth Summit but were not specifically addressed in the Rio Declaration. In 1986, Mrs. King, representing the Greenbelt Movement in Kenya, told the World Commission on Environment and Development that:

women are responsible for between 60 to 90 percent of the food production, processing, and marketing. No one can really address the food crisis in Africa or many of the other crises that seem to exist here without addressing the question of women, and really seeing that women are participants in decision-making processes at the very basic all the way through up to the highest level.²⁰³

The role of women as a vital labor force in Latin America, Asia, and Africa²⁰⁴ has long been recognized, but the rather vague formulation produced about women in the Rio Declaration failed to address this issue in any specific manner.

Given the amount of publicity and media attention generated by the Earth Summit, it would have been worthwhile to emphasize—if only for popular consumption—certain key areas of environmental and social concern with respect to women. This is probably why Princess Sonam Chhoden Wangchuck, representing the King of Bhutan at UNCED, em-

202. Margaret Shields, Director, United Nations Research and Training Institute for the Advancement of Women, Statement at United Nations Conference on Environment and Development (June 9, 1992).

203. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 124 (quoting Statement from Mrs. King, *The Greenbelt Movement*, (WCED Public Hearing, Nairobi, Sept. 23, 1986)).

204. See WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 124-5.

phasized, "the recognition of the role of women, particularly rural women, in sustainable development is crucial as women are motivated by their primary concern to improve their families' quality of life." Pointing out that "too few women are involved in decision-making processes of environmental management and policy making," Princess Sonam Wangchuck expressed her delegation's view that "women's role in leadership and community-based participation must be vital components of sustainable development strategies."²⁰⁵ The delegation from Thailand was headed by a Princess who is also a professor, Dr. Chulabhorn Mahidol. It was fitting that in her statement to UNCED she stressed that women "must play an equal partnership role in the integration of environment and development."²⁰⁶

In March 1992, British Overseas Development Minister, Lynda Chalker, called for a "change in attitudes towards women in developing countries," and indicated that this would be "a high priority in the British aid programme."²⁰⁷ Thorbjorn Berntsen, Norway's Minister of Environment, proposed particular efforts to include women in decision making.²⁰⁸

Bella Abzug, Co-Chair Women's Environment and Development Organization, reported to the plenary at UNCED about the activities of women's groups at preparatory meetings, action which resulted in the inclusion of a principle about the role of women in the Rio Declaration. Ms. Abzug also emphasized the fact that UNCED's mandate directed Secretary-General Maurice Strong to "ensure that women's critical economic, social and environmental contributions to sustainable development be addressed . . . as a distinct cross-cutting issue in addition to being mainstreamed in all the substantive work and documentation."²⁰⁹ It is quite apparent that the women's issue aroused international concern and interest.

Not everyone, however, was satisfied with the resulting principle which became part of the Rio Declaration. The Canadian Participatory Committee of Non-Government Agencies, which advised on the declaration was highly critical of the final document. With reference to the principle on women (quoted above), the Committee commented that "as writ-

205. Her Royal Highness Princess Sonam Chhoden Wangchuck, Representative of the King of Bhutan, Statement at United Nations Conference on the Environment and Development (June 11, 1992).

206. Professor Dr. Her Royal Highness Princess Chulabhorn Mahidol, Personal Representative of the King of Thailand, Statement at United Nations Conference on the Environment and Development (June 5, 1992).

207. Statement, Lynda Chalker, Overseas Development Minister, United Kingdom, British Information Services, Ottawa, Mar. 10, 1992.

208. Thorbjorn Berntsen, Minister of Environment for Norway, Statement at United Nations Conference on the Environment and Development (June 4, 1992).

209. Bella Abzug, Co-Chair Women's Environment and Development Organization, Statement at United Nations Conference on the Environment and Development (June 9, 1992).

ten, the principle is vacuous."²¹⁰ This is probably justified criticism, but in evaluating the progress from Stockholm to Rio, the existence of a reference to women's participation is illustrative of forward movement, however minimal the actual distance travelled.

B. *Indigenous People*

In a world of incredibly fast change and rapid destruction of the old in favor of the new, we have in the twenty years since Stockholm begun to realize both the value and the vulnerability of those groups whose preference is an alternate lifestyle more in tune with nature than the frenzied pace that industrialized civilization normally allows. The indigenous people of the world have suffered a cruel and undeserved fate at the relentless hands of majority cultures which have either victimized them by deliberate genocide or by economic deprivation. Indigenous people are

found in North America, in Australia, in the Amazon Basin, in Central America, in the forests and hills of Asia, in the deserts of North Africa, and elsewhere The isolation of many such people has meant the preservation of a traditional way of life in close harmony with the natural environment. Their very survival has depended on their ecological awareness and adaptation. But their isolation has also meant that few of them have shared in national economic and social development; this may be reflected in their poor health, nutrition, and education.²¹¹

There is now a greater awareness of and sensitivity towards the needs of such cultures. It is now mainstream thinking in North America not to view them as obstacles to development, but to perceive them as important contributors to civilizational harmony. Indigenous people form part of the rich tapestry of human culture and in protecting their right to life and their cultural heritage, the world is finally recognizing its debt to its own past. At Rio, delegates endorsed the following principle:

Indigenous people and their communities, and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognise and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development. (Rio Declaration, Principle 22)

The United Nations has also proclaimed 1993 as the International Year for the World's Indigenous People.²¹² However, despite the international action involved in formulating the universal declaration on indigenous rights,²¹³ tribal people continue to be slaughtered in countries like

210. York & Rusk, *supra* note 16.

211. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *supra* note 6, at 114.

212. *International Year of the World's Indigenous People*, U.N. GAOR, 45 Sess., Agenda Item 12, U.N. Doc. A/Res/45/164 (1991).

213. See United Nations Document, Agenda 21, Chapter 26.

Guatemala. Rigoberta Menchu, winner of the 1992 Nobel Peace Prize for her work on behalf of indigenous people in Guatemala, has revealed to the world the tragedy of her people: one hundred thousand have died in the past three decades and over forty thousand have vanished.²¹⁴ Indigenous people in a number of nations from Canada to India are agitating for recognition of their status, for an end to their marginalized existence at the outer perimeters of society. Realistically, indigenous leaders like Menchu admit: "I don't think we can have an indigenous nation, alone in the world, at the end of the 20th century."²¹⁵ However, it is now widely recognized that extinction is not their inevitable fate nor is it their only alternative. In recognizing the worth of groups which live harmoniously with nature, we are only belatedly admitting that "[t]he Aboriginal viewpoint corresponds closely with the ecological perspective."²¹⁶ As Richard Falk comments: "In a fundamental sense, indigenous peoples preserve and embody alternate life-styles that may provide models, inspiration, guidance in the essential work of world order redesign, an undertaking now primarily associated with overcoming self-destructive tendencies in the behaviour of modern societies."²¹⁷

It is significant that the principle in the Rio Declaration is rather general and vague with respect to the role of indigenous peoples. States are not mandated to support nor to recognize them. The more mild word "should" is used. There is no mention of the inherent rights of indigenous people, nor is there any recognition of their right to political identity within the nation state. The commitment (if it can be called that) is so ambiguous, that it is uncertain how states should support their identity, culture and interests. However, despite its obvious weakness, the provision carries the world a step forward from Stockholm in according international recognition to the world's indigenous people. "Perhaps ironically, the growth of modern communications and transportation has internationalized the struggle of indigenous peoples in the last decade or so."²¹⁸ Perhaps, there is now a growing consciousness that we must look to our indigenous roots to find alternate ways of living and create lifestyles which are sustainable and healthy for our planet. Time is running out for humanity. The indigenous people by their suffering serve to remind us about the fate of fragile life forms and by their resilience give us hope that all may not yet be lost. This point was dramatically made at UNCED by Ji Chaozhu, Under-Secretary-General of the United Nations Department of Economic and Social Development, who quoted from Native American Chief Seattle's statement of 1855: "Whatever happens to the

214. Graham Fraser, *Nobel Peace Prize Opens Doors for Menchu*, GLOBE AND MAIL, Nov. 13, 1992, at A7.

215. *Id.* at A7.

216. Richard Falk, *The Rights of Peoples (In Particular Indigenous Peoples)*, RIGHTS OF PEOPLES 23 (James Crawford ed., 1988).

217. *Id.*

218. *Id.* at 19.

earth, happens to the people of the earth. Man did not weave the web of life: he is merely a strand in it. Whatever he does to the web, he does to himself."²¹⁹

XVII. CONCLUSION

After the intensive, often feisty negotiating sessions which resulted in the Rio Declaration, most delegates attempted to put a positive face on the result of their wrangling. Hans Alders, Minister of Environment of the Netherlands, commented:

We see the Declaration as a sound basis for the much needed development of international law, and therefore endorse it as it stands. The Declaration not only reaffirms the Declaration of Stockholm, but it takes matters further, as indeed it should. New important elements in this Declaration are the principle of responsibility for future generations, the precautionary principle, the principle of informed participation in decision-making, the recognition of the rights of indigenous peoples and the importance of youth and the role of women in managing the environment. It is our task to ensure that these principles will be embodied in all future national and international legal and policy instruments.²²⁰

Not all delegates were willing to perceive progress from the brutal negotiating sessions which had preceded the final production of the declaration. Giorgio Ruffolo, Italy's Minister for Environment, admitted that he was not happy with some of the formulations in the Declaration.²²¹

At the end, the environment/development conflict was evident in the way delegates perceived the final product of their deliberations. The South had fought hard to achieve a development-oriented declaration. The North, more fragmented and less unified than the developing nations, found its concept of an Earth Charter converted into a statement emphasizing the primacy of development in a number of provisions. This was precisely what the South wanted. As Dr. Emil Salim, Indonesia's State Minister for Population and the Environment, stated,

[b]ecause the objectives of our Conference include both the environment and development, both aspects must be reflected in the Rio Declaration. Therefore, while affirming the responsibility to undertake global environmental action, the Declaration must also affirm the right of nations to pursue development. Only in this way will we be able to counter the destructive potential of environmental degradation

219. Ji Chaozhu, United Nations Under-Secretary-General, Department of Economic and Social Development, Statement at United Nations Conference on Environment and Development (June 11, 1992). For a longer, slightly varied version of Chief Seattle's statement, see GORE, *supra* note 79, at 259.

220. Hans Alders, Minister for the Environment of the Netherlands, Statement at United Nations Conference on the Environment and Development (June 5, 1992).

221. Giorgio Ruffolo, Minister of Environment for Italy, Statement at United Nations Conference on the Environment and Development (June 4, 1992).

and the equally terrible potential of global social and political upheavals.²²²

The Rio Declaration did not satisfy all Southern nations. The Prime Minister of Malaysia, Dr. Mahathir Bin Mohamad, believed that it had been "watered down upon insistence from the powerful and the rich."²²³

For the North, there was much dissatisfaction with the Rio Declaration. In framing their initial concept for an Earth Charter, the Canadians sought inspiration from the Universal Declaration of Human Rights. "But with the watered-down Rio declaration, 'the visionaries came up against the lawyers and bureaucrats, and the lawyers and bureaucrats won.'"²²⁴ The problem, as the Canadians saw it, was that developing nations "campaign[ed] for a declaration that would have endorsed their right to develop with little environmental constraint, while blaming the rich for the world's environmental problems."²²⁵ The Canadian Participatory Committee of Non-Government Agencies commented that "some of the principles are so gaseous as to dissolve upon examination."²²⁶ The Austrian delegate was more optimistic. Ruth Feldgrill-Zankel, Austria's Minister of Environment, agreed that "it may appear deplorable that the Rio Declaration did not turn out to be an inspired and inspiring document comparable to the Universal Declaration of Human Rights." However, she felt "confident that we will all live to see the elaboration of a true Earth Charter. In the meantime, we consider the Rio Declaration as an important cornerstone and will give the serious consideration to it in our own decision making process."²²⁷ Speaking on behalf of the European Community, Portugal's Minister of Environment, Carlos Borrego, acknowledged the fact that the Declaration contains "many important principles recognized for the first time at the global level," and stated that it reflected "in a balanced way the various interests and concerns both of developing and developed countries."²²⁸ The fact that the Declaration drew fire from both North and South is indicative of the fact that it probably passed the test of a document reflecting true consensus. No one was totally happy with it but equally it was more or less acceptable to all nations. The delegate from Sri Lanka, Environment Minister Vincent Perera, suggested that developed nations ought to view the developing countries with "em-

222. Dr. Emil Salim, State Minister for Population and the Environment of the Republic of Indonesia, Statement at United Nations Conference on the Environment and Development (June 5, 1992).

223. Dr. Mahathir Bin Mohamad, Prime Minister of Malaysia, Statement at United Nations Conference on the Environment and Development (June 13, 1992).

224. York & Rusk, *supra* note 16.

225. *Id.*

226. *Id.*

227. Ruth Feldgrill-Zankel, Minister of Environment of Austria, Statement at United Nations Conference on the Environment and Development (June 5, 1992).

228. Carlos Borrego, Minister of Environment and Natural Resources for Portugal, Statement at United Nations Conference on the Environment and Development (June 3, 1992).

pathy and understanding. Perhaps if they had done so during the preparatory process the lead up to UNCED would have been smoother and less tortuous."²²⁹ Conceding that the Declaration had not lived up to expectations, the delegate from Nauru, Kinza Clodumar, saw the significance of "nations . . . for the first time sitting down together to consider collectively problems of environment and development at the global level."²³⁰

Although it appears at first glance to be a document geared to the Southern agenda, in a very real sense, most Northern nations achieved their major objectives in the Rio Declaration. The British hoped to enshrine as fundamental principles, the precautionary approach, the polluter pays principle, and the idea of public access to information.²³¹ This was largely achieved, albeit not in the stirring fluent language initially envisioned by the developed countries. The government of Sweden stressed the importance of the polluter pays principle, the precautionary approach and the responsibility of nations to ensure that internal activities do not endanger the environment of other countries.²³² Norway favored the polluter pays principle and an open and fair international trading system, and insisted that "environmental concerns must not be used as a pretext to introduce discriminatory trade practices."²³³

It was left to the Japanese to place the Rio Declaration in proper perspective by calling it a "significant first step in our efforts towards sustainable development."²³⁴ Dr. Helmut Kohl, Chancellor of Germany, suggested that it was part of a solid foundation for further measures.²³⁵ With an eye on the future, Portuguese Prime Minister Anibal Cavaco Silva proposed that "[t]he Rio Declaration will have to serve as a basis for the establishment of new relations between all parties concerned, whether public or private, which will, in a responsible manner, have to provide answers appropriate to the challenge facing us."²³⁶ Nations were obviously already gearing to the post-Rio process even as the endless parade of dignitaries marched past the eyes of delegates and cameras from around the world. "The principles inscribed in the Rio Declaration will serve as benchmarks for future progress," stated Denmark's Minister

229. Vincent Perera, Minister of Environment, Sri Lanka, Statement at United Nations Conference on the Environment and Development (June, 1992).

230. Kinza Clodumar, Minister of Finance for Republic of Nauru, Statement at United Nations Conference on Environment and Development (June 9, 1992).

231. *U.N. Conference on Environment and Development*, Foreign and Commonwealth Office (London) Issue 25/92 (June 29, 1992).

232. *Sweden: National Report to UNCED, 1992*, Ministry of the Environment, Sweden, 1991, 12.

233. Thorbjorn Berntsen, Minister of Environment of Norway, Statement at United Nations Conference on the Environment and Development (June 4, 1992).

234. Kiichi Miyazawa, Prime Minister of Japan, Address at United Nations Conference on the Environment and Development (June 13, 1992).

235. Helmut Kohl, Chancellor of the Federal Republic of Germany, Statement at United Nations Conference on the Environment and Development (June 12, 1992).

236. Anibal Cavaco Silva, Prime Minister of Portugal, Statement at United Nations Conference on the Environment and Development (June 12, 1992).

for the Environment.²³⁷ Jordan's King Hussein urged nations to exert "greater efforts to perfect" the imperfect Summit agreements.²³⁸ Singapore's Minister for the Environment, Dr. Ahmad Mattar, declared confidently that "the adoption of the Rio Declaration will bring about a new world ethic towards our living environment."²³⁹

Canada has taken the initiative in resuscitating the initial vision of an Earth Charter, a vision which had faded when the competing interests of North and South resulted in the somewhat disjointed body of principle which we have been examining. Canadian Prime Minister Brian Mulroney suggested that "the idea of an Earth Charter of environmental rights and responsibilities, which has slipped beyond our grasp at Rio, should be revived."²⁴⁰ Mulroney proposed that an Earth Charter be completed by 1995, in time for the fiftieth anniversary of the United Nations.²⁴¹ The Canadian initiative would utilize the existing Rio Declaration as a basis for a "visionary 'Earth Charter' that would integrate these principles."²⁴² Speaking in Hull, Quebec during Environment Week 1992, the Canadian Prime Minister declared: "Just as the Helsinki Accords set a point of reference for human rights and responsibilities, so an Earth Charter would set benchmarks for environmental rights and responsibilities."²⁴³ It will be interesting to see whether this Canadian initiative is implemented or whether it will fall victim as did the Stockholm and Rio Declarations to the national and financial priorities of Member States of the United Nations.

It is imperative that the process of formulating principles of international environmental law continue in years to come. There is an obvious need for environmental law to become part of the everyday consciousness of men, women and children around the world. Environmental regeneration cannot be accomplished without extensive public enthusiasm and participation. It is simply not a matter which can be left to governments. If anything, Stockholm and Rio both demonstrated that governments are often far behind their populations in terms of heightened awareness of the significance of this issue. By coming to Stockholm and Rio with the old baggage of national sovereignty and developing versus developed country conflicts, the bureaucrats and politicians ultimately betrayed the

237. Per Stig Moller, Minister of Environment of Denmark, Statement at United Nations Conference on the Environment and Development (June 9, 1992).

238. His Majesty King Hussein I of Jordan, Statement at United Nations Conference on the Environment and Development (June 5, 1992).

239. Dr. Ahmad Mattar, Minister for the Environment, Singapore, Statement at United Nations Conference on the Environment and Development (June 11, 1992).

240. Brian Mulroney, Prime Minister of Canada, Statement at United Nations Conference on the Environment and Development (June 12, 1992).

241. *Id.*

242. *Canada and the Earth Summit: Achievements*, United Nations Conference on the Environment and Development, June 3-14, 1992.

243. Brian Mulroney, Prime Minister of Canada, Address at the Canadian Museum of Civilization, Hull, Quebec (June 1, 1992).

idealistic vision which ought to have been incorporated in both instruments of principle. Time alone will tell whether the people will be able to recapture the vision from the politicians and create an Earth Charter which will impel and enthuse all five and half billion of us to work to save this planet.

APPENDIX I

RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT

PREAMBLE

The United Nations Conference on Environment and Development,
HAVING MET at Rio de Janeiro from 3 to 14 June 1992,

REAFFIRMING the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm of 16 June 1972, and seeking to build upon it,

WITH THE GOAL of establishing a new and equitable global partnership through the creation of new levels of cooperation among States, key sectors of societies and people,

WORKING TOWARDS international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system,

RECOGNISING the integral and interdependent nature of the Earth, our home,

PROCLAIMS that:

PRINCIPLE 1

Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

PRINCIPLE 2

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

PRINCIPLE 3

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

PRINCIPLE 4

In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

PRINCIPLE 5

All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

PRINCIPLE 6

The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.

PRINCIPLE 7

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, states have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

PRINCIPLE 8

To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

PRINCIPLE 9

States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

PRINCIPLE 10

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each indi-

vidual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

PRINCIPLE 11

States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

PRINCIPLE 12

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation.

Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

PRINCIPLE 13

States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

PRINCIPLE 14

States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.

PRINCIPLE 15

In order to protect the environment, the precautionary approach

shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

PRINCIPLE 16

National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

PRINCIPLE 17

Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

PRINCIPLE 18

States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted.

PRINCIPLE 19

States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.

PRINCIPLE 20

Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development.

PRINCIPLE 21

The creativity, ideals and courage of the youth of the world should be mobilised to forge a global partnership in order to achieve sustainable development and ensure a better future for all.

PRINCIPLE 22

Indigenous people and their communities, and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognise and duly support their identity, culture and interests and en-

able their effective participation in the achievement of sustainable development.

PRINCIPLE 23

The environment and natural resources of people under oppression, domination and occupation shall be protected.

PRINCIPLE 24

Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

PRINCIPLE 25

Peace, development and environmental protection are interdependent and indivisible.

PRINCIPLE 26

States shall resolve all their environmental dispute peacefully and by appropriate means in accordance with the Charter of the United Nations.

PRINCIPLE 27

States and people shall cooperate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.

APPENDIX II

DECLARATION OF THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT

The United Nations Conference on the Human Environment,

Having met at Stockholm from 5 to 16 June 1972,

Having considered the need for a common outlook and for common principles to inspire and guide the peoples of the world in the preservation and enhancement of the human environment,

I

Proclaims that:

1. Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprece-

dented scale. Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights - even the right to life itself.

2. The protection and improvement of the human environment is a major issue which affects the well-being of peoples and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments.

3. Man has constantly to sum up experience and go on discovering, inventing, creating and advancing. In our time, man's capability to transform his surroundings, if used wisely, can bring to all peoples the benefits of development and the opportunity to enhance the quality of life. Wrongly or heedlessly applied, the same power can do incalculable harm to human beings and the human environment. We see around us growing evidence of man-made harm in many regions of the earth: dangerous levels of pollution in water, air, earth and living beings; major and undesirable disturbances to the ecological balance of the biosphere; destruction and depletion of irreplaceable resources; and gross deficiencies harmful to the physical, mental and social health of man, in the man-made environment, particularly in the living and working environment.

4. In the developing countries most of the environmental problems are caused by under-development. Millions continue to live far below the minimum levels required for a decent human existence, deprived of adequate food and clothing, shelter and education, health and sanitation. Therefore, the developing countries must direct their efforts to development, bearing in mind their priorities and the need to safeguard and improve the environment. For the same purpose, the industrialized countries should make efforts to reduce the gap between themselves and the developing countries. In the industrialized countries, environmental problems are generally related to industrialization and technological development.

5. The natural growth of population continuously presents problems on the preservation of the environment, and adequate policies and measures should be adopted, as appropriate, to face these problems. Of all things in the world, people are the most precious. It is the people that propel social progress, create social wealth, develop science and technology and, through their hard work, continuously transform the human environment. Along with social progress and the advance of production, science and technology, the capability of man to improve the environment increases with each passing day.

6. A point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequences. Through ignorance or indifference we can do massive and irreversible harm to the earthly environment on which our life and well-being depend. Conversely, through fuller knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes. There are

broad vistas for the enhancement of environmental quality and the creation of a good life. What is needed is an enthusiastic but calm state of mind and intense but orderly work. For the purpose of attaining freedom in the world of nature, man must use knowledge to build, in collaboration with nature, a better environment. To defend and improve the human environment for present and future generations has become an imperative goal for mankind - a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of worldwide economic and social development.

7. To achieve this environmental goal will demand the acceptance of responsibility by citizens and communities and by enterprises and institutions at every level, all sharing equitably in common efforts. Individuals in all walks of life as well as organizations in many fields, by their values and the sum of their actions, will shape the world environment of the future. Local and national governments will bear the greatest burden for large-scale environmental policy and action within their jurisdictions. International co-operation is also needed in order to raise resources to support the developing countries in carrying out their responsibilities in this field. A growing class of environmental problems, because they are regional or global in extent or because they affect the common international realm, will require extensive co-operation among nations and action by international organizations in the common interest. The Conference calls upon Governments and peoples to exert common efforts for the preservation and improvement of the human environment, for the benefit of all the people and for their posterity.

II

PRINCIPLES

States the common conviction that:

Principle 1

Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuating *apartheid*, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated.

Principle 2

The natural resources of the earth including the air, water, land, flora and fauna and especially representative samples of natural ecosystems must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.

Principle 3

The capacity of the earth to produce vital renewable resources must be maintained and, wherever practicable, restored or improved.

Principle 4

Man has a special responsibility to safeguard and wisely manage the heritage of wildlife and its habitat which are now gravely imperilled by a combination of adverse factors. Nature conservation including wildlife must therefore receive importance in planning for economic development.

Principle 5

The non-renewable resources of the earth must be employed in such a way as to guard against the danger of their future exhaustion and to ensure that benefits from such employment are shared by all mankind.

Principle 6

The discharge of toxic substances or of other substances and the release of heat, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems. The just struggle of the peoples of all countries against pollution should be supported.

Principle 7

States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

Principle 8

Economic and social development is essential for ensuring a favourable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life.

Principle 9

Environmental deficiencies generated by the conditions of underdevelopment and natural disasters pose grave problems and can best be remedied by accelerated development through the transfer of substantial quantities of financial and technological assistance as a supplement to the domestic effort of the developing countries and such timely assistance as may be required.

Principle 10

For the developing countries, stability of prices and adequate earn-

ings for primary commodities and raw material are essential to environmental management since economic factors as well as ecological processes must be taken into account.

Principle 11

The environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all, and appropriate steps should be taken by States and international organizations with a view to reaching agreement on meeting the possible national and international economic consequences resulting from the application of environmental measures.

Principle 12

Resources should be made available to preserve and improve the environment, taking into account the circumstances and particular requirements of developing countries and any costs which may emanate from their incorporating environmental safeguards into their development planning and the need for making available to them, upon their request, additional international technical and financial assistance for this purpose.

Principle 13

In order to achieve a more rational management of resources and thus to improve the environment, States should adopt an integrated and co-ordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve the human environment for the benefit of their population.

Principle 14

Rational planning constitutes an essential tool for reconciling any conflict between the needs of development and the need to protect the environment.

Principle 15

Planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all. In this respect projects which are designed for colonialist and racist domination must be abandoned.

Principle 16

Demographic policies, which are without prejudice to basic human rights and which are deemed appropriate by Governments concerned, should be applied in those regions where the rate of population growth or

excessive population concentrations are likely to have adverse effects on the environment or development, or where low population density may prevent improvement of the human environment and impede development.

Principle 17

Appropriate national institutions must be entrusted with the task of planning, managing or controlling the environmental resources of States with the view to enhancing environmental quality.

Principle 18

Science and technology, as part of their contribution to economic and social development, must be applied to the identification, avoidance and control of environmental risks and the solution of environmental problems and for the common good of mankind.

Principle 19

Education in environmental matters, for the younger generation as well as adults, giving due consideration to the underprivileged, is essential in order to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension. It is also essential that mass media communications avoid contributing to the deterioration of the environment, but, on the contrary, disseminate information of an educational nature, on the need to protect and improve the environment in order to enable man to develop in every respect.

Principle 20

Scientific research and development in the context of environmental problems, both national and multinational, must be promoted in all countries, especially, the developing countries. In this connexion, the free flow of up-to-date scientific information and transfer of experience must be supported and assisted, to facilitate the solution of environmental problems; environmental technologies should be made available to developing countries on terms which would encourage their wide dissemination without constituting an economic burden on the developing countries.

Principle 21

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Principle 22

States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such states to areas beyond their jurisdiction.

Principle 23

Without prejudice to such criteria as may be agreed upon by the international community, or to standards which will have to be determined nationally, it will be essential in all cases to consider the systems of values prevailing in each country, and the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries.

Principle 24

International matters concerning the protection and improvement of the environment should be handled in a co-operative spirit by all countries, big or small, on an equal footing. Co-operation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all sphere, in such a way that due account is taken of the sovereignty and interests of all states.

Principle 25

States shall ensure that international organizations play a co-ordinated, efficient and dynamic role for the protection and improvement of the environment.

Principle 26

Man and his environment must be spared the effects of nuclear weapons and all other means of mass destruction. States must strive to reach prompt agreement, in the relevant international organs, on the elimination and complete destruction of such weapons.

